USER MANUAL

DEEP ARCHIVE MANAGER

Version 1.5 - March 2015

MediArchive.Director

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Regional Contacts

The address and phone number of the EVS headquarters are usually mentioned in the Help > About menu in the user interface.

You will find the full list of addresses and phone numbers of local offices either at the end of this user manual (for manuals on hardware products) or at the following page on the EVS website: http://www.evs.com/contacts.

User Manuals on EVS Website

The latest version of the user manual, if any, and other user manuals on EVS products can be found on the EVS download center, on the following webpage: http://www.evs.com/downloadcenter.

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What's New

In theUser Manual the icon NEW ! has been added on the left margin to highlight information on new and updated features.

The changes linked to new features in version 4.0 are listed below.

The application now writes files to the AppData folder instead of it's own executable folder.

Added logout function to the File menu.

- See section "Main Window" on page "7".

Deep Archive Manager now keeps track of multiple LTO tape IDs.

- See section "Synchronizing LTO Tape IDs" on page "35".

Deep Archive Manager now allows to search for multiple LTO tape IDs.

- See section "Searching for Files" on page "31".

1. About the Application

Deep Archive Manageris a user application that forms part of the deep archive module of the central archiving system MediArchive Director or MAD. The deep archive module is responsible for archiving ingested files on LTO tape, for (partially) restoring archived files and for removing files from the storage and from LTO tape. Deep Archive Manager is used to check the status and progress of the archive, restore, remove online copy and purge processes. It also allows to retry failed restore jobs.

2. Installing the Application

See the MAD Installation manual for more information on how to install the application.

3. Starting the Application

3.1. After Installation

To start the application after installation, proceed as follows:

1. Double-click the Deep Archive Manager icon  on the server desktop to start the application. You can also launch the application by double-clicking the executable file (.exe) in the installation folder.

   The application splash screen appears while the application logs into the MAD database.

   Then, the Settings window appears allowing you to configure the application. See section "Settings Window" on page "57".

3.2. After Configuration

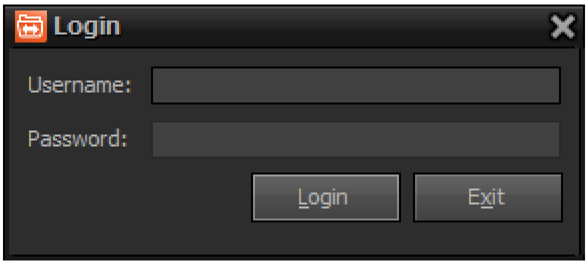
To start the application after it has been configured, proceed as follows:

1. Double-click the Deep Archive Manager icon  on the server desktop to start the application. You can also launch the application by double-clicking the executable file (.exe) in the installation folder.

   The application splash screen appears while the application logs into the MAD database.

   Then, a Login dialog box appears.

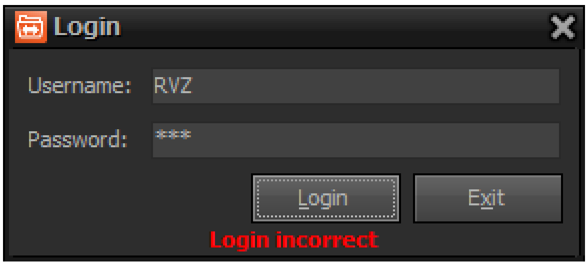
   

   To be able to log into the application, you need to belong to a user group that has a role which allows to use the application.

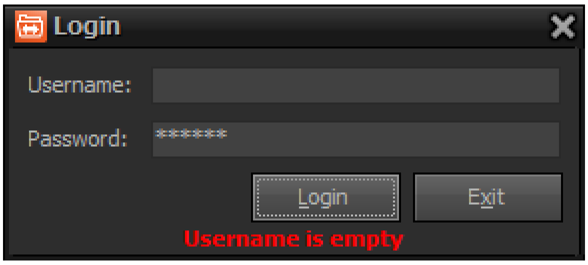
2. Enter your username and password and click **Login**. The main window of the application opens.

You get an error notification if:

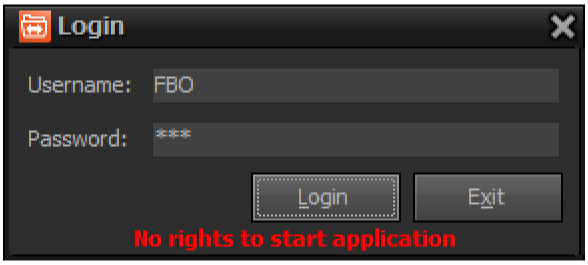
- you have entered a wrong username or password.

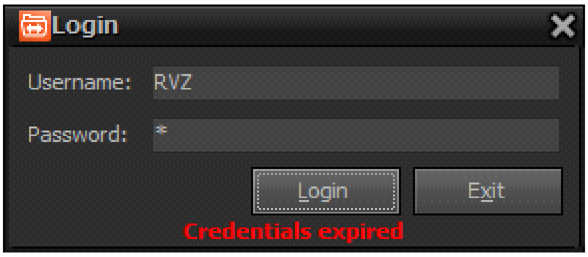
- you have omitted your username.



- you have insufficient user rights.



- your user account has expired.



Warning
If you have lost your password, a new password will have to be set in MAD Config. Contact your system administrator.

3.3. Version and License Check

Introduction

The version of the application and the validity of the application license will be checked when the application logs into the MAD database at startup. The status of the version or the license that is returned is displayed on the application splash screen.

Version and License Statuses

The following version and license statuses can be returned:

Status	Description	Color	Action Required
Current	The actual version of the application.	no color	No action required. The application starts automatically.
Outdated	A newer version of the application exists, but this version can still be used. The application version that should be installed is displayed.	red	Click **OK** to start the application at once. By default, the application starts automatically after 10 seconds.
Obsolete	A newer version of the application exists and must be used. This version may not be used anymore. The application version that should be installed is displayed.	red	Click **OK** to continue. The application shuts down.
Undefined	The version of the application is not defined in the MADdatabase.	black	Click **OK** to continue. The application shuts down.
Beta	A test version.	blue	Click **OK** to start the application. By default, the application starts automatically after 10 seconds.

Status	Description	Color	Action Required
License About to Expire	The license period is about to expire. It is shown in how many days the license will expire. Contact your system administrator or check the License Controller manual.	orange	Click **OK** to start the application at once. By default, the application starts automatically after 10 seconds.
License Expired	The license period has expired. The date when the license expired is displayed. Contact your system administrator or check the License Controller manual.	red	Click **OK** to continue. The application shuts down.
No Valid License	There was no valid license found in the database. Contact your system administrator or check the License Controller manual.	red	Click **OK** to continue. The application shuts down.
Maximum Licenses Reached	The maximum number of instances <NUMBER OF LICENSES> for the license has been reached. Contact your system administrator or check the License Controller manual.	red	Click **OK** to continue. The application shuts down.

4. User Interface

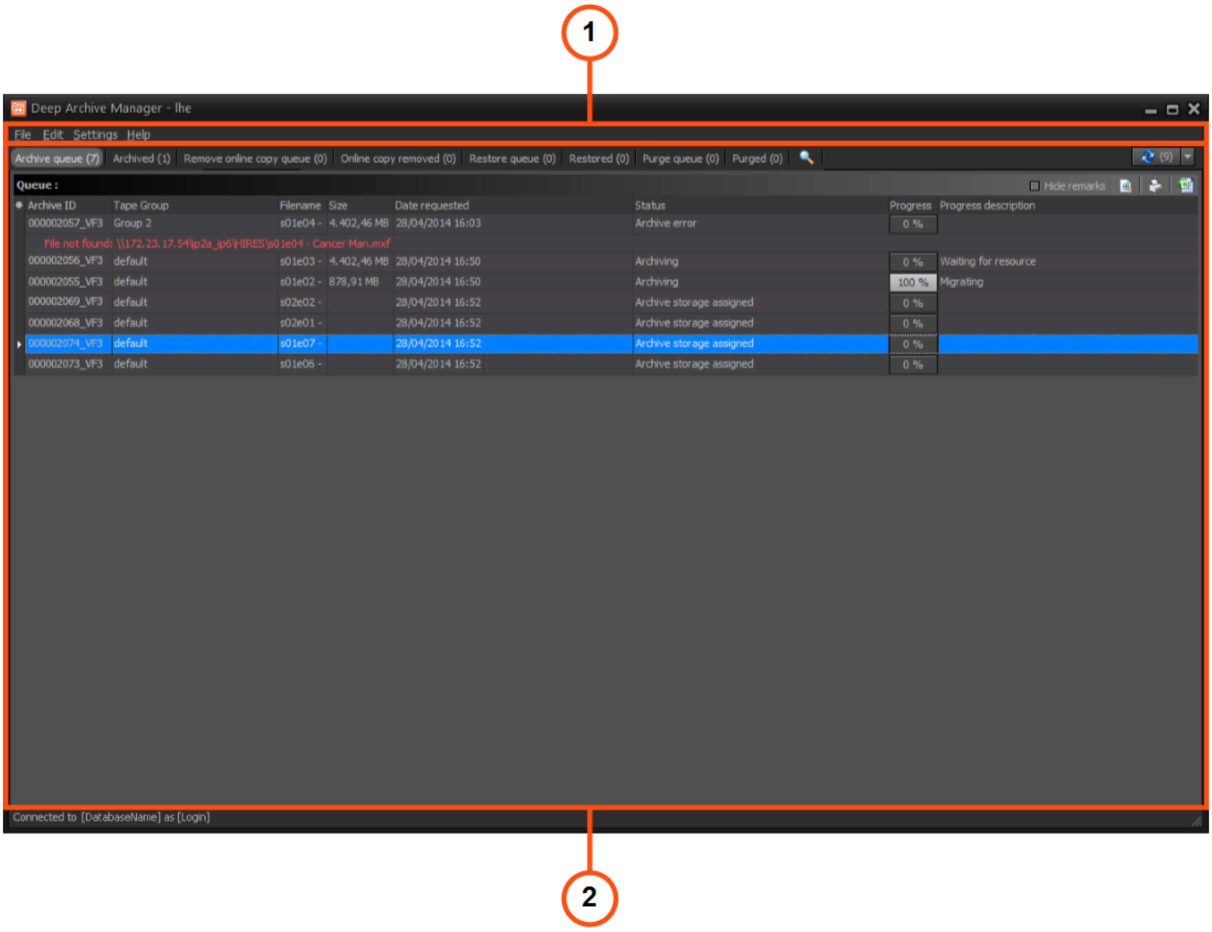
4.1. Main Window

General Description

The main window allows you to view all the files that have been requested to be, that are being and that have already been archived, restored, removed from the storage and purged from LTO tape. It enables you to monitor the status and progress of each process and to retry it in case something goes wrong.

Illustration

The main window contains the areas highlighted on the screenshot below:



Area Description

The table below describes the various parts of the main window:

Part	Name	Description
1.	Menu bar	The Menu bar contains four menus: **File**, **Edit**, **Settings** and **Help**.
2.	Tabs	The tabs represent a stage in the archive, restore, purge or online copy removal process. They allow to monitor the status and progress of each process.

NEW !

Menu Bar

The menu bar contains four menus: **File**, **Edit**, **Settings** and **Help**.

File Menu

The **File** menu contains two commands: **Logout** and **Exit**.

Click the **File** menu or use the keyboard shortcut keys **ALT** + **F** or **F10** + **F** to open it.

Click **Exit** or use the keyboard shortcut key **X** to exit the application.

Click **Logout** or use the keyboard shortcut key **O** to log out of the application.

Edit Menu

The **Edit** menu contains one command: **Sync All Tape IDs**.

With the **Sync All Tape IDs** command you can synchronize the LTO tape IDs of all files that are visible in a particular tab. This command is not available in the Archive Candidates, Refused, Archive Queue, Purge Queue and Purged tab.

Settings Menu

The **Settings** menu does not contain any commands. It immediately gives access to the application settings. Click the **Settings** menu or use the keyboard shortcut keys **ALT** + **S** or **F10** + **S** to access the settings.

Help Menu

The **Help** menu contains the following commands: **Help**, **Context-Sensitive Help** and **About**.

With the **Help** command you can open the application help file.

With the **Context-Sensitive Help** command you can turn on or off the context-sensitive help mode. In context-sensitive help mode, when you click a user interface item, help for that item is displayed. You can also turn on or off context-sensitive help mode by pressing **F1**.

With the **About** command the application about box can be opened. The about box displays the application software version, the date until which the application license is valid, the name and version of the database the application is logged on to and the login name used.

Click **About** or use the keyboard shortcut key **A** to open the application about box.

Tabs

The main window contains twelve tabs. The table below briefly describes the function of each tab.

Tab	Description
Archive Queue	This tab shows a list of files that have been requested to be archived. You can monitor the progress and status of the archive process. See section "Archive Queue Tab" on page "13".
Archived	This tab shows a list of files that have been archived on LTO tape. It also shows the files that have been fully restored to the storage. You can search for files that have been archived in a particular period. See section "Archived Tab" on page "15".
Remove Online Copy Queue Tab	This tab shows a list of files that have been requested to be removed from the storage. You can monitor the progress and status of the removal process. See section "Remove Online Copy Queue Tab" on page "17".
Online Copy Removed Tab	This tab shows a list of files that have been removed from the storage. You can search for files that have been removed from the storage in a particular period.

Tab	Description
Restore Queue Tab	This tab shows a list of files that have been requested to be restored to the storage. You can monitor the progress and status of the restore process. See section "Restore Queue Tab" on page "21".
Restored Tab	This tab shows a list of files that have been fully or partially restored. You can search for the files that have been restored in a particular period. See section "Restored Tab" on page "23".
Purge Queue Tab	This tab shows a list of files that have been requested to be purged from LTO tape. You can monitor the progress and status of the purge process. See section "Purge Queue Tab" on page "25".
Purged Tab	This tab shows a list of files that have been purged from LTO tape. You can search for files that have been purged in a particular period. See section "Purged Tab" on page "27".
Search Tab	This tab allows you to search for files in the database using a number of predefined search criteria. See section "Search Tab" on page "29".

Username

The username of the person that is currently logged in is displayed next to the application title.

Refresh Button

The **Refresh** button allows you to manually refresh the data that is displayed in the various grids. Click the arrow next to the **Refresh** button to enable or disable the autorefresh functionality.

The autorefresh functionality can also be enabled or disabled in the settings and a refresh rate can be specified.

See section "Options Tab" on page "59".

Counter

Each tab has a counter indicating the number of records it contains.

It should be noted that the counter does not take into account the filters that may be possibly applied.

4.2. File Data

The grids in all the tabs of Deep Archive Manager display the following information about each file:

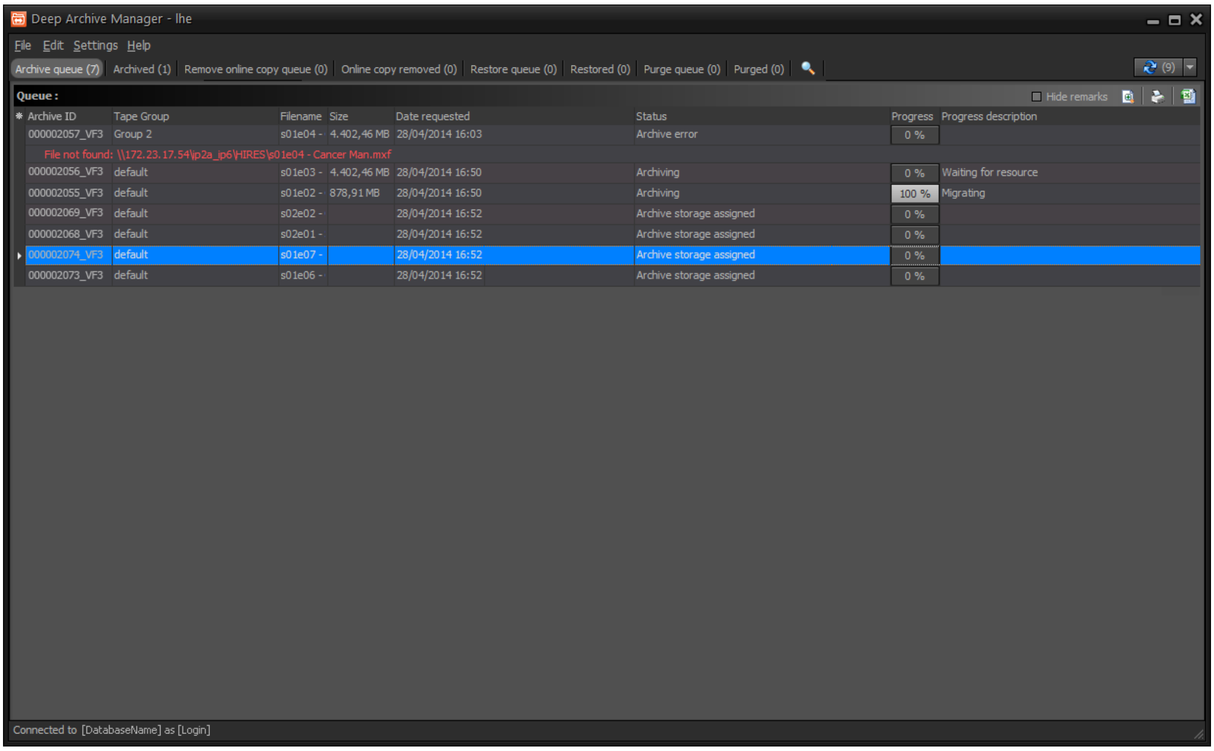
File Data	Description
Archive ID	ID used to archive the file. It consists of the Media ID and the video format ID.
Tape Group	Name of the LTO tape group.
Filename	Name of the of the file.
Date Requested	Date and time the archive, restore or remove online copy request was performed.

Each tab also displays additional information that is relevant for that specific tab.

4.3. Archive Queue Tab

General Description

The Archive Queue tab displays a list of files that have been requested to be archived.



Additional File Data

The following additional file data is displayed:

- **Size**: The size of the video file.
- **Date Requested**: The date and time the archive request was made.
- **Status**: The current archive status of the file.
- **Progress**: The bar that conveys the progress of the archive task.
- **Progress Description**: The archive progress description originating from the deep archive system.

In case an error occurs during the archive process, an error message will be displayed that details what went wrong.

Once a file has been archived, it will disappear from the Archive Queue tab and appear in the Archived tab. See section "Archived Tab" on page "15".

Archive Status

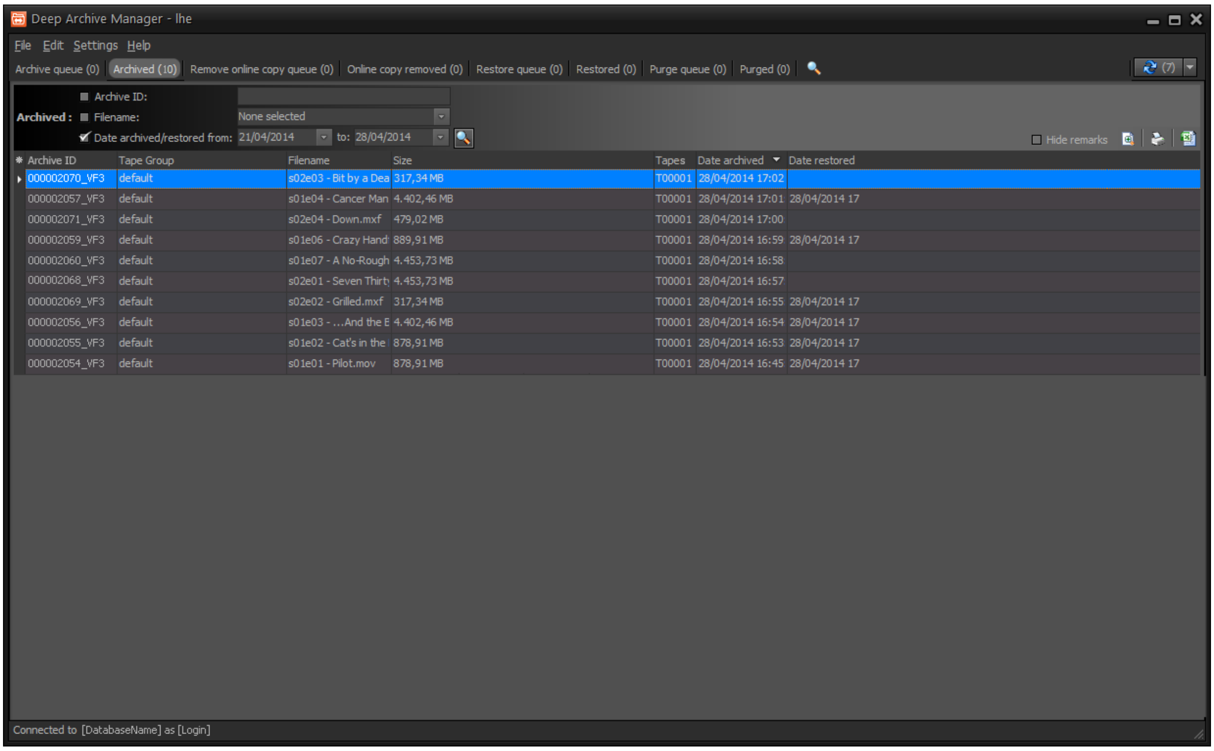
A file can have the following archive statuses:

Status	Description
Unknown	The archive status of the file is unknown.
Request Archive	A request to archive the file has been performed. A deep archive system (HSM) has not been assigned yet.
Archive Storage Assigned	A deep archive system (HSM) has been found ready to perform the archive request.
Archive Requested	The request to archive the file has been submitted to the deep archive system (HSM).
Archiving	The file is being archived by the deep archive system (HSM).
Archived	The file has been archived.
Archive Error	An error occurred during the archiving process.

4.4. Archived Tab

Overview

The Archived tab displays the files that have been archived to LTO tape. Depending on the settings, it can also displays the files that have been fully restored to the storage. See section "Options Tab" on page "59".



Archived Grid

By default, the Archived grid displays the files that have been archived or fully restored in the past 7 days. This can be changed in the settings. See section "Options Tab" on page "59".

Search Fields

A number of search fields are provided which allow you to search for files by:

- their archive ID
- their name
- the date or period in which they were archived or restored

By default, the **Date Archived/Restored From** check box is selected. See section "Searching for Files" on page "31".

Additional File Data

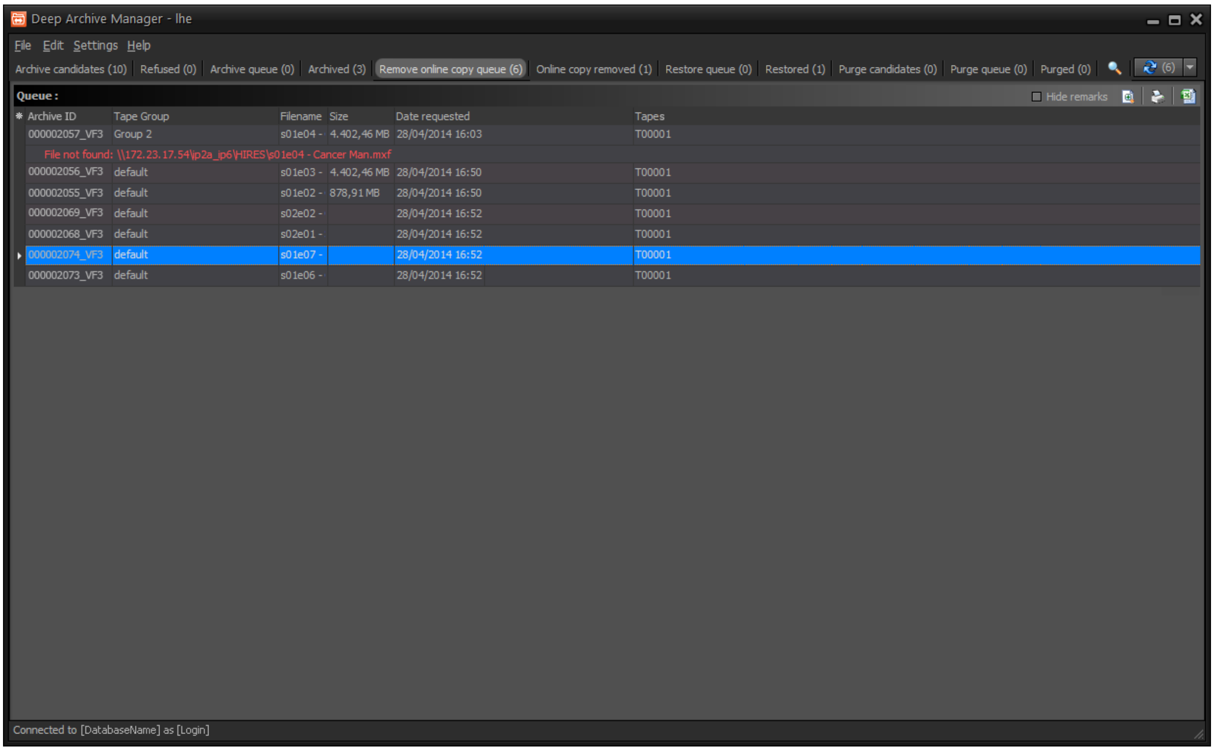
The following additional file data is displayed:

- **Size**: The size of the video file.
- NEW ! **Tapes**: The ID of the main and possible backup LTO tape(s) on which the video file has been archived. In order to display the ID of possible backup tapes, a manual synchronization has to be performed. See section "Synchronizing LTO Tape IDs" on page "35".
- **Date Archived**: The date and time the video file was archived.
- **Date Restored**: The date and time the video file was restored.

4.5. Remove Online Copy Queue Tab

General Description

The Remove Online Copy Queue tab displays a queue of files that have been requested to be removed from the storage.



Additional File Data

The following additional file data is displayed:

- **Size**: The size of the video file.

NEW !

- **Tapes**: The ID of the main and possible backup LTO tape(s) on which the video file has been archived. In order to display the ID of possible backup tapes, a manual synchronization has to be performed. See section "Synchronizing LTO Tape IDs" on page "35".

In case something goes wrong during the removal process, an error message will be displayed that details what went wrong.

Once a video file has been removed from the storage, it will disappear from the Remove Online Copy Queue tab and appear in the Online Copy Removed tab. See section "Online Copy Removed Tab" on page "19".

Remove Online Copy Status

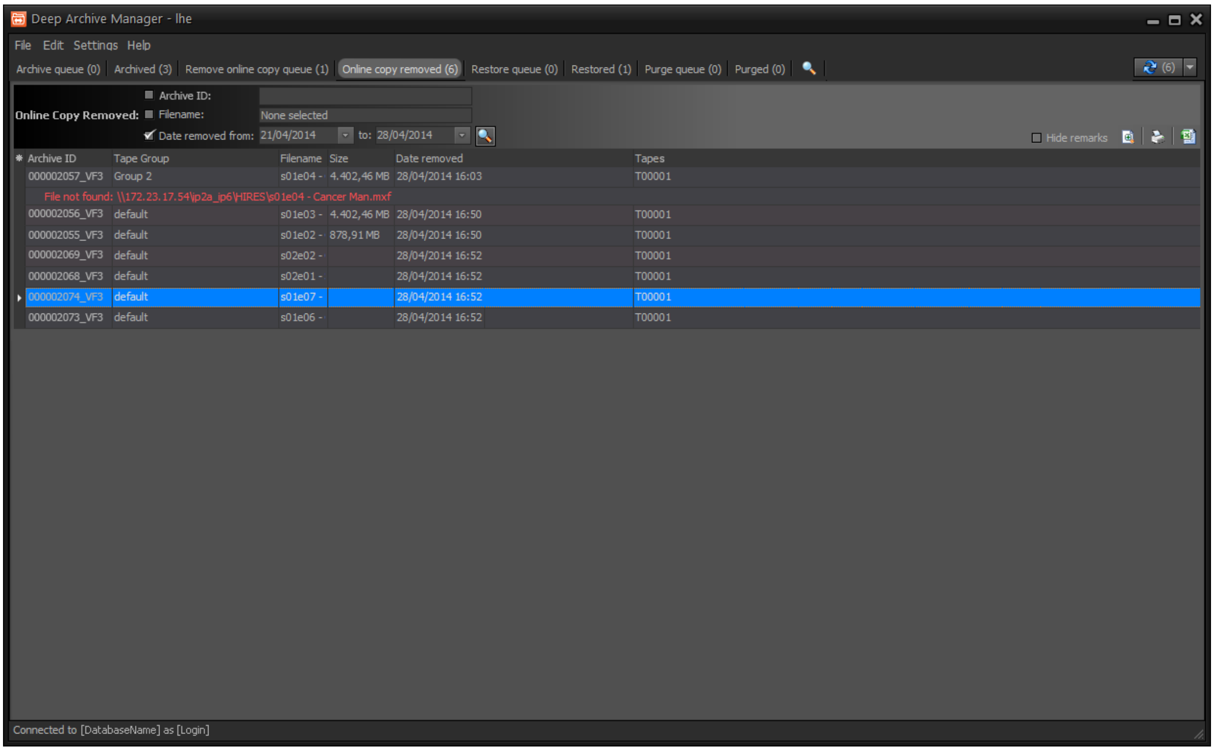
A file can have one of the following statuses:

Status	Description
Request Remove Online Copy	A request to remove the file from the storage has been performed.
Removing Online Copy	The high- or low-resolution video file is being removed from the storage.
Online Copy Removed	The high- or low-resolution video file has been removed from the storage.
Remove Online Copy Error	An error occurred during the removal of the file.

4.6. Online Copy Removed Tab

Overview

The Online Copy Removed tab displays the files that have been removed from the storage.



Online Copy Removed Grid

By default, the Online Copy Removed grid displays a list of files that have been removed from the storage in the past 7 days. This can be changed in the settings. See section "Options Tab" on page "59".

Search Fields

A number of search fields are provided which allow you to search for files by:

- their Archive ID
- their name
- the date or period in which they were removed from the storage

By default, the **Date Removed From** check box is selected. See section "Searching for Files" on page "31".

Additional File Data

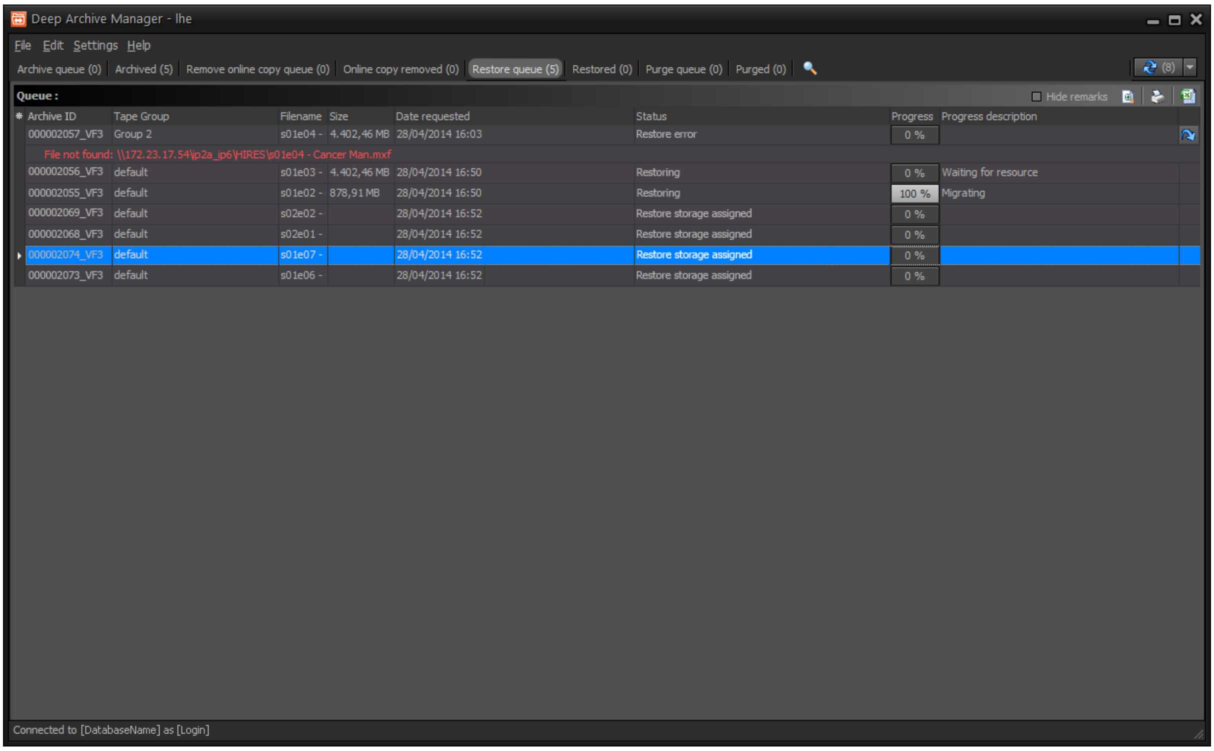
The following additional file data is displayed:

- **Size**: The size of the video file.
- NEW ! **Tapes**: The ID of the main and possible backup LTO tape(s) on which the video file has been archived. In order to display the ID of possible backup tapes, a manual synchronization has to be performed. See section "Synchronizing LTO Tape IDs" on page "35".
- **Date Removed**: The date and time the video file was removed from the storage.

4.7. Restore Queue Tab

General Description

The Restore Queue tab displays a queue of files that have been requested to be restored to the storage.



Additional File Data

The following additional file data is displayed:

- **Size**: The size of the video file.

NEW !

- **Tapes**: The ID of the main and possible backup LTO tape(s) on which the video file has been archived. In order to display the ID of possible backup tapes, a manual synchronization has to be performed. See section "Synchronizing LTO Tape IDs" on page "35".
- **Date Requested**: The date and time the request to restore the video file was made.
- **Status**: The current restore status of the file.
- **Progress**: The bar that conveys the progress of the restore task.
- **Progress Description**: The restore progress description originating from the deep archive system.

In case an error occurs during the restore process, an error message will be displayed that details what went wrong.

Retry Button

If a restore job goes wrong, a **Retry** button  will appear allowing you to retry the job. See section "Handling Errors From the Deep Archive System" on page "39".

Once a video file has been restored, the file will disappear from the Restore Queue tab and appear in the Archived tab. Depending on the settings, it can also appear in the Restored tab. See section "Archived Tab" on page "15" and "Restored Tab" on page 23 and "Options Tab" on page 59. Partially restored files will only appear in the Restored tab.

Restore Status

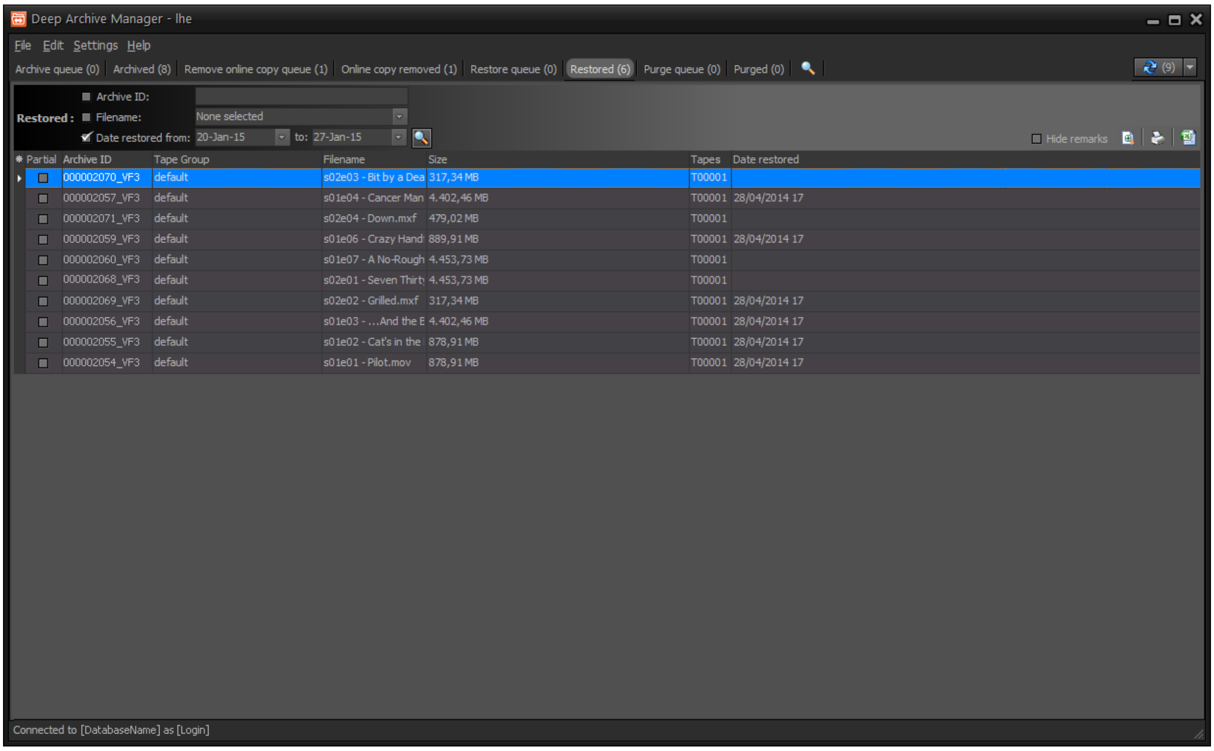
A file can have the following restore statuses:

Status	Description
Request Restore	A request to restore the video file has been performed. A deep archive system (HSM) has not yet been assigned.
Restore Storage Assigned	A deep archive system (HSM) has been found ready to perform the restore request.
Restore Requested	The request to restore the video file has been submitted to the deep archive system (HSM).
Restoring	The video file is being restored.
Restore Error	An error occurred during the restore process.
Partially Restored	The video file has been partially restored from LTO tape.

4.8. Restored Tab

Overview

The Restored tab displays the files that have been restored to the storage. The high-resolution video files can be fully or partially restored. The low-resolution video files can only be fully restored.



Restored Grid

By default, the Restored grid displays the files that have been restored in the past 7 days. This can be modified in the settings. See section "Options Tab" on page "59".

Search Fields

A number of search fields are provided which allow you to search for files by:

- their Archive ID
- their name
- the date or period in which they were restored to the storage.

By default, the **Date Restored From** check box is selected. See section "Searching for Files" on page "31".

Additional File Data

The following additional file data is displayed:

- **Partial**: A check box that indicates if the record is a partially restored file or not. When checked, it is a partially restored file. When unchecked, it is a fully restored file.
- **Size**: The size of the video file.
- **Date Restored**: The date and time the video file was fully or partially restored.

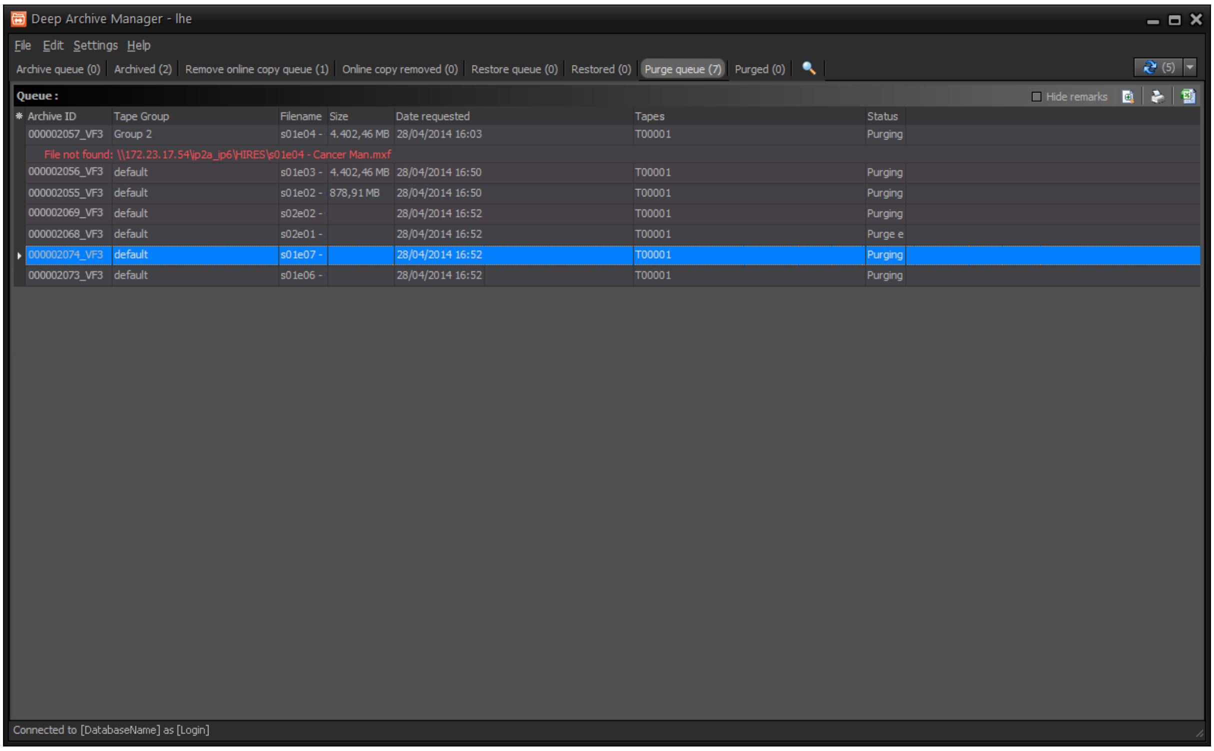
NEW !

- **Tapes**: The ID of the main and possible backup LTO tape(s) on which the video file has been archived. In order to display the ID of possible backup tapes, a manual synchronization has to be performed. See section "Synchronizing LTO Tape IDs" on page "35".

4.9. Purge Queue Tab

General Description

The Purge Queue tab displays a queue of files that have been requested to be purged from LTO tape.



Additional File Data

The following additional file data is displayed:

- **Size**: The size of the video file.
- NEW ! **Tapes**: The ID of the main and possible backup LTO tape(s) from which the video file has to be removed.
- **Status**: The current purge status of the file.

In case an error occurs during the purge process, an error message will be displayed that details what went wrong.

Note
Depending on your user rights, the Purge Queue tab will be visible or not. For more info, contact your system administrator.

Purge Status

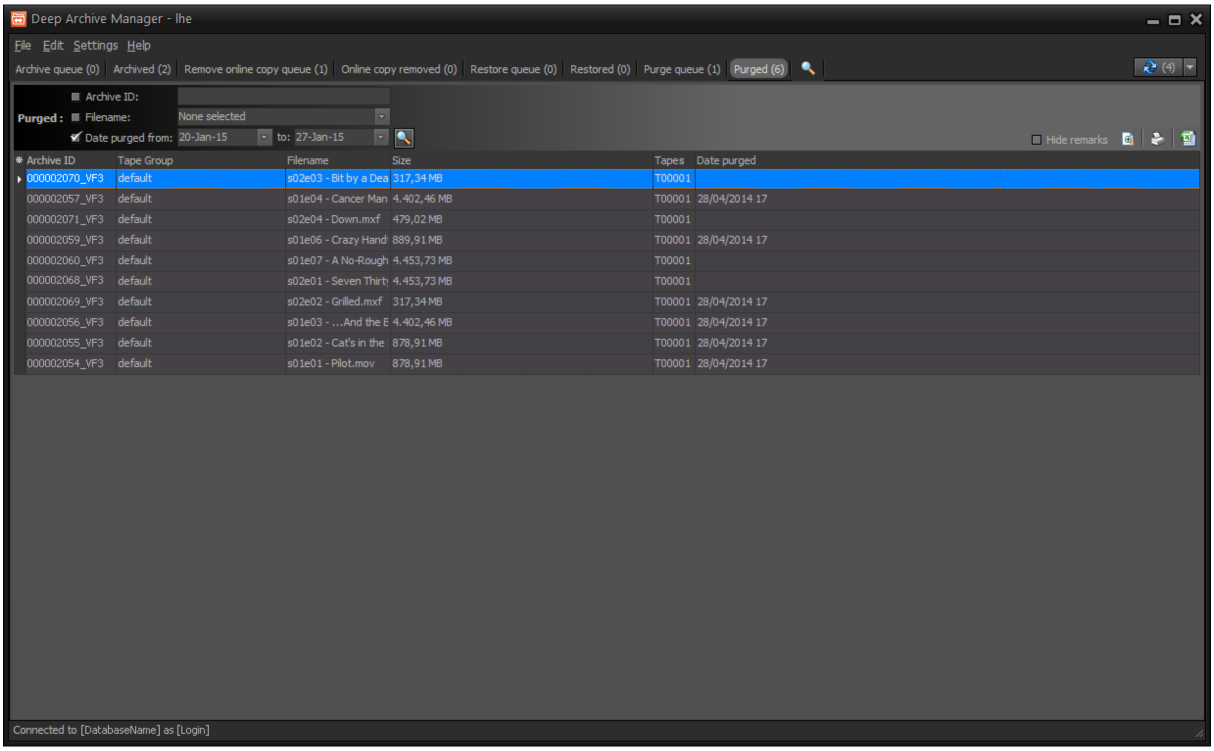
A file can have one of the following purge statuses:

Status	Description
Purge Requested	A request to remove the file from LTO tape has been performed.
Purging	The file is being removed from LTO tape.
Purged	The file has been removed from LTO tape.
Purge Error	An error occurred during the purge process.

4.10. Purged Tab

Overview

The Purged tab displays the files that have been purged from LTO tape.



Purged Grid

By default, the Purged grid displays the files that have been purged from LTO in the past 7 days. This can be modified in the settings. See section "Options Tab" on page "59".

Search Fields

A number of search fields are provided which allow you to search for files by:

- their Archive ID
- their name
- the date or period in which they were purged

By default, the **Date Purged From** check box is selected. See section "Searching for Files" on page "31".

Additional File Data

The following additional file data is displayed:

- **Size**: The size of the video file.

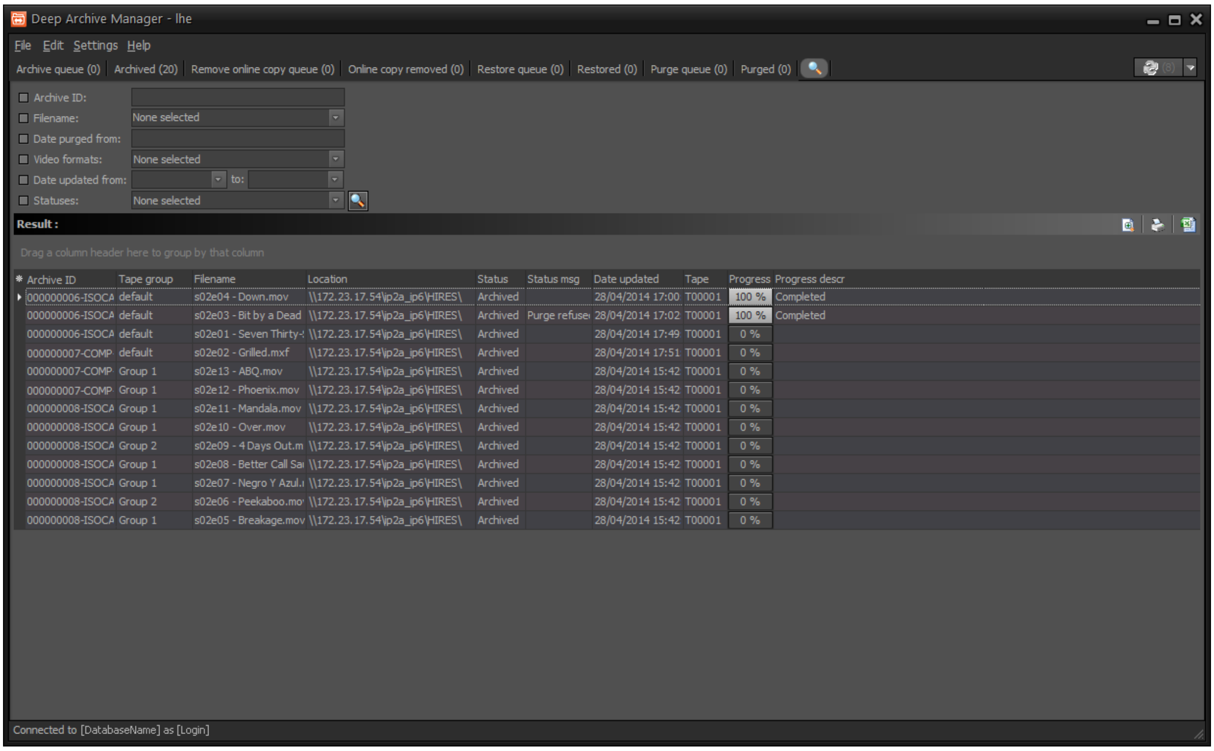
- **Date Purged**: The date and time the video file was purged from LTO tape.

Note
Depending on your user rights, the Purged tab will be visible or not. For more info, contact your system administrator.

4.11. Search Tab

General Description

The Search tab allows you to search for files in the database using a number of search criteria.

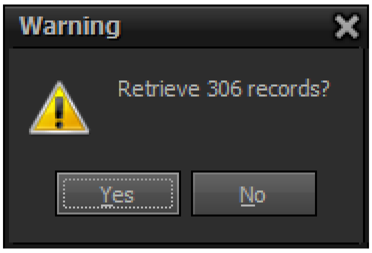


Search Criteria

Files can be searched by:

- their Archive ID
- their name
- the ID of the LTO tape(s) they were archived to
- their video format
- the date or period their status was last updated in Deep Archive Manager
- their archive status.

The search criteria can be combined to narrow down the search results. Only the selected criteria are active. To start a search, you have to click the **Search** button . A warning message will appear indicating the number of search results.



The data in the search results grid can be sorted, filtered and grouped. See section "Managing Grids" on page "40".

5. Searching for Files

5.1. Introduction

Deep Archive Manager allows you to search for files in two possible ways:

- You can use the search fields that are provided in the Archive Candidates, Refused, Archived, Online Copy Removed, Restored and Purged tab to search for files with a specific archive status.
- You can also make use of the Search tab. This tab allows you to search for all files in the database. See section "Search Tab" on page "29".

5.2. How to Search for Files

Searching by Filename

To search for files by their name, proceed as follows:

1. Enter (part of) the filename in the field next to the **Filename** check box. The check box will be automatically selected.

2. Click the **Search** button to start the search.

NEW !

Searching by Tape ID

To search for files by the ID of the LTO tape(s) they have been archived to, proceed as follows:

1. Enter (part of) the tape ID(s) in the field next to the **Tape Id** check box. The check box will be automatically selected. Do not forget to add a comma between each tape ID.

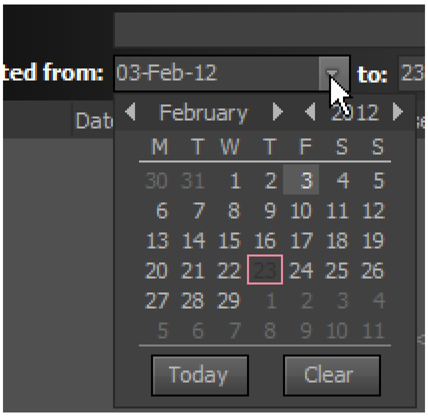
2. Click the **Search** button to start the search.

Searching by Date or Period

To search for files that have been archived, restored, purged or that have been removed from the storage on a particular day or in a particular period, proceed as follows:

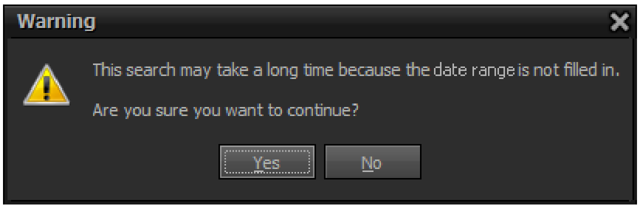
1. Open the desired tab.
2. In the **Date From** box, do one of the following:
   - Enter the desired start date. The check box will be automatically selected. Proceed to step 4.

- Click the downward pointing arrow to open a date picker.

  Proceed to step 3.

  If you do not enter a date range, a message will appear warning you that the search may take a long time. Click **Yes** to continue or **No** to abort the search.

3. Do one of the following:
   - Select the desired year, month and day.
   - Click **Clear** to clear the currently selected date and select a new date.
   - Click **Today** to select the current date.

   The check box will be automatically selected.

4. In the **To** box, enter an end date for the period or select a date from the date picker.

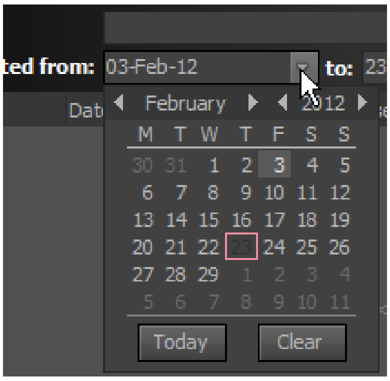
   To display the files that have been archived, restored, purged or that have been removed on a particular day, enter the same date as the one you entered in the **Date From** box.

5. Click the **Search** button  to start the search.

Searching by Update Period

To search for files in the database by the date or period their archive status was last updated in Deep Archive Manager, proceed as follows:

1. In the **Date Updated From** box, do one of the following:
   - Enter the desired start date. The check box will be automatically selected. Proceed to step 3.
   - Click the downward pointing arrow to open a date picker.



Proceed to step 2.

2. Do one of the following:
    - Select the desired year, month and day.
    - Click **Clear** to clear the currently selected date and select a new date.
    - Click **Today** to select the current date.

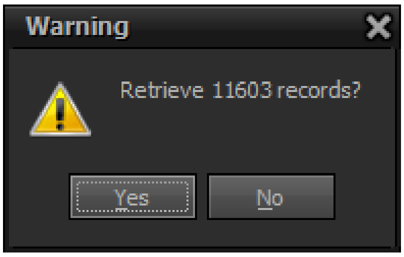
    The check box will be automatically selected.

3. In the **To** box, enter an end date for the period or select a date from the date picker.

    To display the files whose archive status was last updated on a particular day, enter the same date as the one you entered in the **Date Updated From** box.

4. Click the **Search** button to start the search.

    A warning message appears indicating the number of files found. If there are a lot of results, the loading can take some time.



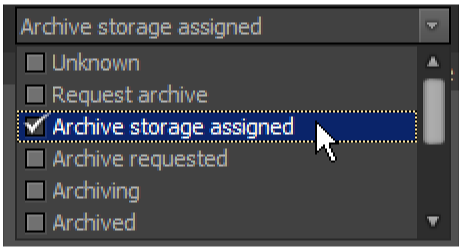
5. Click **Yes** to continue or **No** to cancel the search operation.

Searching by Archive Status

To search for files in the database by their archive status, proceed as follows:

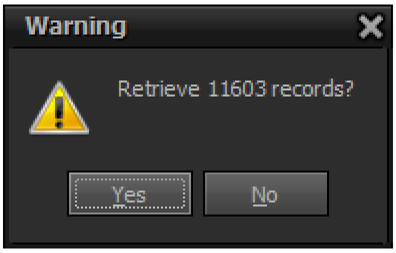
1. Open the **Statuses** drop-down list and select the desired archive status from the list. Multiple statuses can be selected.

The check box will be automatically selected.



2. Click the **Search** button  to start the search.

   A warning message appears indicating the number of fles found. If there are a lot of results, the loading can take some time.



3. Click **Yes** to continue or **No** to cancel the search operation.

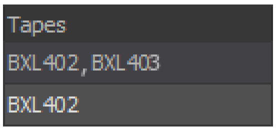
6. Synchronizing LTO Tape IDs

6.1. Display of Multiple LTO Tapes

NEW !

Introduction

Deep Archive Manager allows you at any moment to keep track of the LTO tapes on which a video file is actually archived by displaying their IDs in the Tapes column.



In certain cases, these IDs automatically appear in the Tapes column. In other cases, you will have to manually request the retrieval of this information from the hierarchical storage management system.

In Case of a Normal Archive Workflow

In case of a normal archive workflow, Deep Archive Manager automatically displays the LTO tape ID as soon as the file has been successfully archived.

In Case of Backup Tapes

In case one or more backup tapes have been created of the LTO tape on which the video file has been archived, the ID of these tapes is not automatically displayed in Deep Archive Manager. You will have to manually request the retrieval of these IDs from the hierarchical storage management system.

You can request the retrieval of this information for one specific file, but also for all files visible in the tab. See section "Synchronizing the LTO Tape IDs of a Single File" on page "36" and "Synchronizing the LTO Tape IDs of All Files" on page 37 for more information.

If MADinterfaces with DIVA, you can also retrieve this information using the Deep Archive Sync tool. See the user manual for more information.

In Case of Tape Repacking

In case a video file has been moved to another LTO tape because of a tape repack operation, and IP2Archive does not interface with DIVA, then the ID of the new LTO tape is not automatically displayed in the Deep Archive Manager.

You can request the retrieval of this information for one specific file, but also for all files visible in the tab. See section "Synchronizing the LTO Tape IDs of a Single File" on page "36" and "Synchronizing the LTO Tape IDs of All Files" on page 37 for more information.

If MADinterfaces with DIVA, then in the background, the Deep Archive Sync Controller tool will automatically retrieve this information from DIVA and update it in the MADdatabase after the repack has been successfully updated.

You can also manually retrieve this information using the Deep Archive Sync tool. See the user manual for more information.

In Case of a Manual Purge

In case a video file has been manually purged from the main or a backup LTO tape using the HSM instead of Deep Archive Manager, this is not automatically reflected in the Tapes column.

You can request the retrieval of this information for one specific file, but also for all files visible in the tab. See section "Synchronizing the LTO Tape IDs of a Single File" on page "36" and "Synchronizing the LTO Tape IDs of All Files" on page 37 for more information.

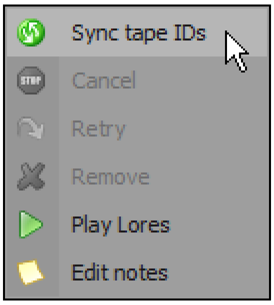
If MADinterfaces with DIVA, you can also retrieve this information using the Deep Archive Sync tool. See the user manual for more information.

6.2. Synchronizing the LTO Tape IDs of a Single File

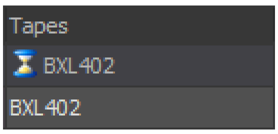
NEW !

To synchronize the LTO tape IDs of a single file, proceed as follows:

1. Select and right-click the desired file.
2. From the context menu, select **Sync Tape IDs**. Note that this option is not available in the following tabs: Archive Candidates, Refused, Archive Queue, Purge Queue and Purged tab.



An hourglass icon appears in the **Tapes** column next to the tape IDs that are already present.



In the background, the LTO tape IDs in the MAD database are synchronized with the ones in the database of the hierarchical storage management system. Once the synchronization has been completed, the hourglass icon disappears again. The LTO tape IDs are separated by a comma.

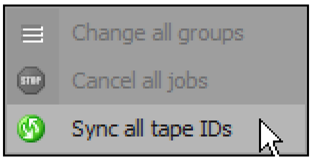
Tapes
BXL402, BXL403
BXL402

6.3. Synchronizing the LTO Tape IDs of All Files

NEW !

To synchronize the LTO tape IDs of all files in a particular tab, proceed as follows:

1. Open the desired tab.
2. From the **Edit** menu, select **Sync All Tape IDs**. Note that this option is not available in the following tabs: Archive Candidates, Refused, Archive Queue, Purge Queue and Purged tab.



- If the list does not contain any partial restores, an hourglass icon appears in the **Tapes** column next to the tape IDs that are already present.

Tapes
BXL402
BXL402
BXL402
BXL402

In the background, the LTO tape IDs in the MADdatabase are synchronized with the ones in the database of the hierarchical storage management system. Once the synchronization has been completed, the hourglass icon disappears again. The LTO tape IDs are separated by a comma.

Tapes
BXL402
BXL402
BXL402, BXL403
BXL402

- If the list only contains partially restored files, then an error message appears: 'Partial clips cannot be synced. You need to request the sync of the full clip.'

  Click **OK** to close the message.

- If the list contains a mix of partial and full restores, the following message appears: 'Partial clips cannot be synced. You need to request the sync of the full clip. You want the sync the tape ID of x records?'

  Click **Yes** to perform the synchronization for the fully restored files.

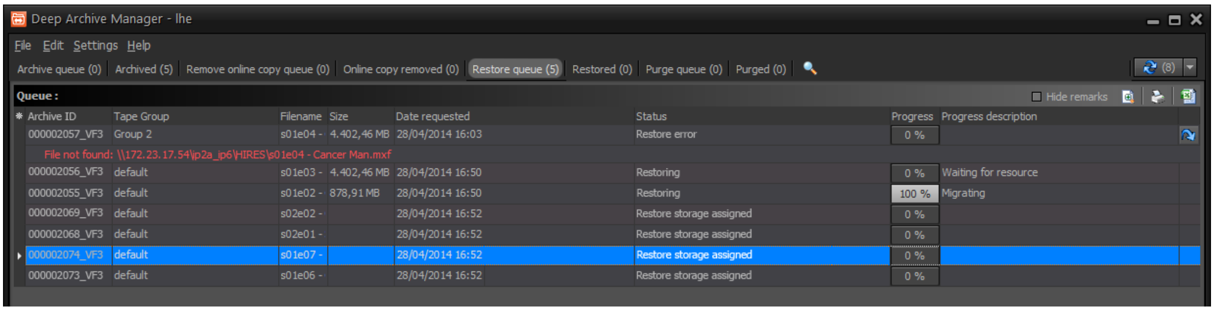
7. Errors

7.1. Types of Errors

Two types of errors can be distinguished in the Archive Queue, Remove Online Copy Queue, Restore Queue and Purge Queue tab of the Deep Archive Manager:

- Errors originating from the deep archive system, e.g. archive, remove online copy, restore and purge errors.
- Errors not originating from the deep archive system, e.g. database errors.

The errors are displayed in the grid below the file they apply to. In the Restore Queue a **Retry** button  appears next to each file with an error message.



The error messages can be hidden by selecting the **Hide Remarks** check box.

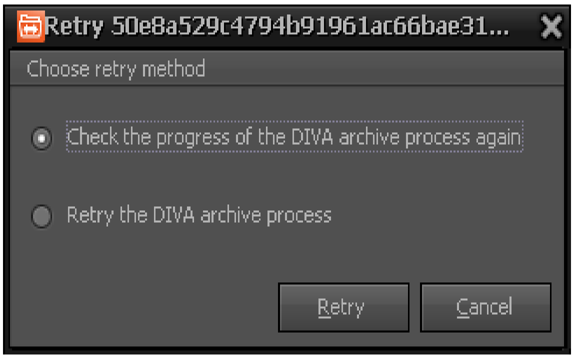
7.2. Handling Errors From the Deep Archive System

Retrying Errors

To retry the restoring of a particular file, proceed as follows:

1. Click the **Retry** button .

   A dialog box appears.

2. Select:
   - the first retry method, if you want Deep Archive Manager to automatically return to the status prior to the error status. This retry method is selected by default.
   - the second retry method, if you want the deep archive system to restart the process.

     If the error gets solved, the process will continue. Otherwise, the record will go into error again.

8. Managing Grids

8.1. Introduction

In Deep Archive Manager most of the data is displayed in grids. Each grid consists of a number of columns containing specific information.

Deep Archive Manager provides you a number of features to customize each grid.

You can:

- adjust the width of each column
- reorder columns
- add and remove columns
- hide and unhide columns
- sort, filter and group data
- perform basic calculations on data.

You can also print the data of each grid or export it to Excel for reporting purposes.

Note

- Sorting data is not possible in the Archive Queue, Remove Online Copy Queue, Restore Queue and Purge Queue tab.
- Grouping data is only possible in the Search tab.

8.2. Manipulating Columns

8.2.1. Adjusting the Width of Columns

The width of each grid column can be manually or automatically adjusted.

How to Manually Adjust the Column Width

To manually adjust the width of a particular column, drag the right or left border of the column header until the column has the desired width.

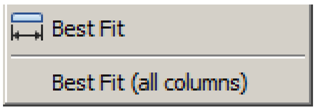
To manually change the width of a column to fit its contents, double-click the boundary on the right side of the column header.

If you hold your cursor over a column header border, it will change into a double-headed arrow.

How to Automatically Adjust the Column Width

To automatically adjust the width of a column to fit its contents, right-click the column header, and then select the **Best Fit** option from the context menu.

To automatically adjust the width of all columns to fit their contents, right-click the column header, and then select the **Best Fit (all columns)** option from the context menu.



8.2.2. Reordering Columns

If you want the information in a grid to be displayed in a different order, you can change the position of the columns. There are two ways to reorder columns.

How to Reorder a Column Using a Drag-And-Drop Action

To reorder a column by directly dragging its header, proceed as follows:

1. Click the header of the column you want to move and hold down your left mouse button.
2. Drag the column header to the desired position in the grid.

   Two arrows will indicate where it is possible to insert the column.

   A black prohibition sign will indicate where the column cannot be inserted.

3. Release the left mouse button to insert the column.

How to Reorder a Column Using the Show/Hide/Move Button

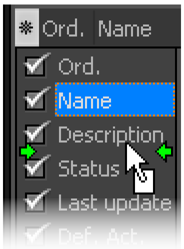
You can also reorder the columns of a grid by using the **Show/Hide/Move** button:

1. Click  on the left side of the first column header.

   A drop-down list containing the headers of the grid columns appears. The column headers are listed in the order in which the columns are displayed in the grid. The first header in the list is the leftmost field in the grid. The columns that are visible in the grid are selected.

   The headers in the screenshot below can differ from the headers available in your application.

2. Select a header and drag it to the desired position in the list. Green arrows will appear indicating where you can insert the grid.



In the grid, the column will be moved to the new position.

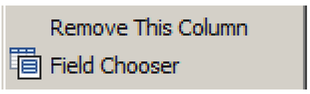
8.2.3. Adding and Removing Columns

If you want more or less information to be displayed in a particular grid, you can simply add or remove one or more columns.

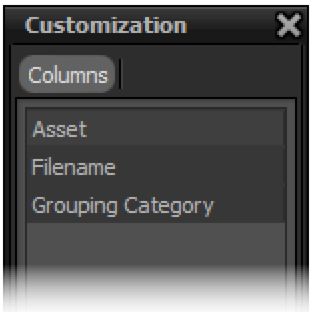
How to Add a Column

To add a column to a grid, proceed as follows:

1. Right-click the header of a column, and then select the option **Field Chooser** from the context menu.



A dialog box appears with a list of predefined columns you can add to the grid. Note that the column headers shown in the screenshot below can differ from the ones displayed in your application.



2. From the list, select the header of the column you want to add to the grid.
3. Drag the column header to the desired position in the grid.

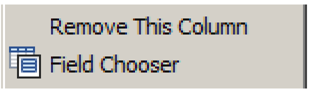
Two green arrows will appear indicating where you can insert the column.

A black prohibition sign or cross will appear if you try to insert the column in a location where it cannot be inserted.

4. Release the left mouse button to insert the column.

How to Remove a Column

To remove a column from a grid, right-click its header and then select the option **Remove This Column** from the context menu.



The column will disappear from the grid and its header will be added to the dialog box containing the columns that can be added to the grid.

The removed column can be added again to the grid.

8.2.4. Hiding and Unhiding Columns

You can temporarily hide columns from a grid without having to remove them. Afterwards, you can easily make them visible again.

How to Hide a Column

To hide a particular column from a grid, proceed as follows:

1. Click the **Show/Hide/Move** button in the top left corner of the grid.

   A drop-down list will appear with the available columns.

2. Deselect the check box next to the header of the column you want to hide from the grid.

How to Unhide a Column

To make a hidden column visible again, proceed as follows:

1. Click the **Show/Hide/Move** button in the top left corner of the grid.

   A drop-down list will appear with the available columns.

2. Select the check box next to the header of the column you want to make visible again.

8.3. Copying Data

To copy the data of a particular grid row to the Clipboard, proceed as follows:

1. Select the appropriate row in the grid.
2. Press CTRL +C.

8.4. Sorting Data

Each grid can be sorted according to the values in one of the columns. You can sort text (from A-Z or from Z-A), numbers (from low to high or from high to low).

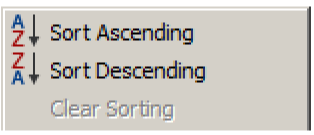
How to Sort Data by Clicking a Column Header

To sort the data in a particular column, click the column header once to sort the data in ascending order. Click again to sort the data in descending order. An arrow next to the column header indicates the sorting method.

	sorted in ascending order
	sorted in descending order

How to Sort Data by Using the Context Menu

You can also sort the data in a particular column by right-clicking the column header and selecting the desired sorting method from the context menu.



To clear the sorting in a particular column, right-click the column header and select the option **Clear Sorting** from the context menu.

8.5. Filtering Data

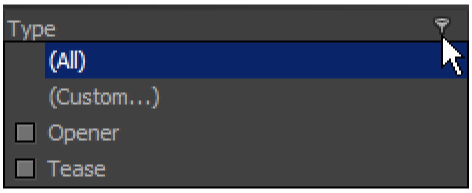
You can filter the data in a grid by using two types of filters: by one or more values from a particular column or by simple or complex criteria.

8.5.1. Filtering by Values From a Column

To filter the data in a particular grid by one or more values from a particular column, proceed as follows:

1. Hold your cursor over the header of the column by whose values you want to filter the grid, and then click the filter button.

   A drop-down list opens containing all the column values.

2. Select the desired values.

   Only the records that contain one of the selected values are displayed in the grid. At the bottom of the grid a filter bar appears displaying the applied filter.

3. In the filter bar, do one of the following:
   - Clear the check box next to the filter to undo it. Select the check box to apply the filter again.
   - Click to undo the filter and close the filter bar.
   - Click to open a drop-down list containing previously applied filters.
   - Click **Customize** to create a complex filter.

8.5.2. Filtering by Criteria

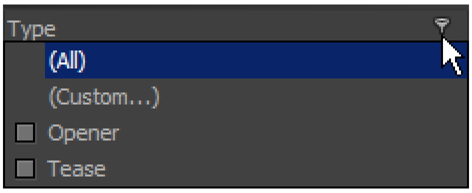
Filters by criteria can be simple or complex:

- **Simple filters** consist of one or two criteria and one Boolean operator (AND or OR).
- **Complex filters** consist of more than two criteria and more than one Boolean operator (AND, OR, NOT AND and NOT OR).

How to Create a Simple Filter

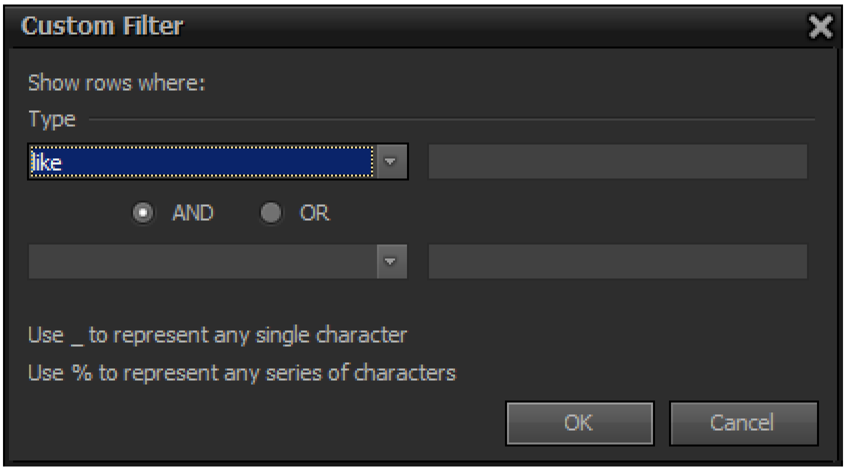
To create a simple filter, proceed as follows:

1. Hold your cursor over the header of the desired column, and then click the filter button appearing in the right corner.



2. From the drop-down list, select the option **(Custom…)**.

   The Custom Filter dialog box appears. Here you can enter the criterion or the two criteria you want to filter the values of the selected column by.



3. Select the desired comparison operator from the first drop-down list.

   A comparison operator is used in comparison criteria to compare two values. Operators include: ‘equals’, ‘does not equal’, ‘is less than’, ‘is less than or equal to’, ‘is greater than’, ‘is greater than or equal to’, ‘like’, ‘not like’, ‘is blank’ and ‘is not blank’.

   For example, if you want to filter the values of a column by text that includes a certain word, character or sign, you have to select the comparison operator ‘like’.

4. Enter text in the field next to the first drop-down list.

   For example, if you want to filter by text that includes the letter ‘S’, type %S%.

   The % wildcard can substitute for zero or more characters. The _ character can substitute for exactly one character.

5. If you want to add a second filter criterion, select the desired Boolean operator. Select:
   - **AND**, if both criteria have to be true;
   - **OR**, if at least one of the criteria or both have to be true.
6. Select the desired comparison operator from the second drop-down list, and then enter text in the field at the right.
7. Click **OK** to apply the filter.

   Only the values matching the entered criterion or criteria will be displayed.

How to Create a Complex Filter

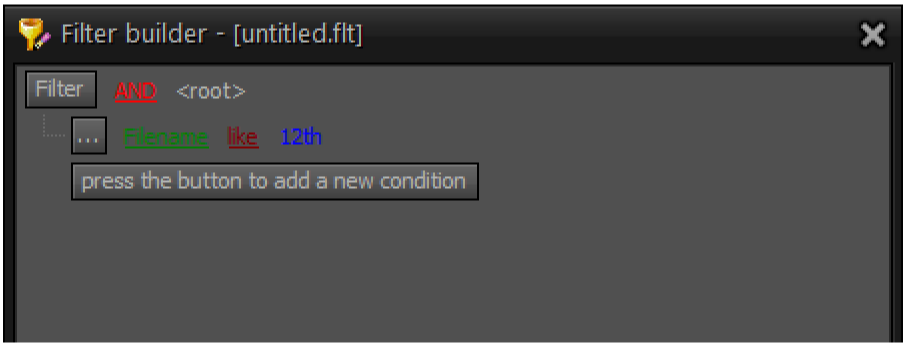
To create a complex filter, proceed as follows:

1. Apply a simple filter to a grid or filter a grid by selecting one or more values from a list of values. See above.

   At the bottom of the grid a filter bar appears.
2. In the filter bar, click the **Customize** button.

   A dialog box appears that allows you to create complex filters. The criteria of the active filter are displayed in a tree structure. Here you can add extra criteria and change the existing criteria.

3. Do one of the following:

- To add a new criterion, do one of the following:
   - click the **Press the Button to Add a New Condition** button;
   - click the **Filter** button and select **Add Condition**;
   - click  next to a criterion and select **Add Condition**.
- To change a criterion, do one of the following:
   - click a column header (green and underlined text) and select another value from the list;
   - click a comparison operator (dark red and underlined text) and select another value from the list: ‘equals’, ‘does not equal’, ‘is less than’, ‘is less than or equal to’, ‘is greater than’, ‘is greater than or equal to’, ‘like’, ‘not like’, ‘is blank’, ‘is not blank’, ‘between’, ‘not between’, ‘in’, ‘not in’;

    - click the dark blue text on the right of the comparison operator and enter another value.

- To delete a criterion, click the button to the left of the criterion and select the option **Remove Row**.
- To add a group of criteria, do one of the following:
    - click next to a random criterion and select **Add Group**;
    - click the **Filter** button and select **Add Group**.
- To delete all criteria, click the **Filter** button and select the option **Clear All**.

4. Do one of the following:
    - To open an existing complex filter, click **Open**;
    - To save the current filter, click **Save As**;
    - To confirm the changes and close the dialog box, click **OK**;
    - To undo the changes, click **Cancel**.
    - To apply the changes, click **Apply**.

   At the bottom of the grid a bar appears which displays the components of the complex filter. Note that if you have already created a custom filter in the past, you can reapply it by clicking the current filter or the downward pointing arrow. A drop-down list containing previous filters appears.

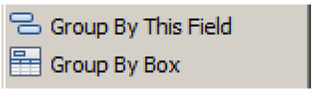
8.6. Grouping Data

The data in each grid can be grouped by one or more columns.

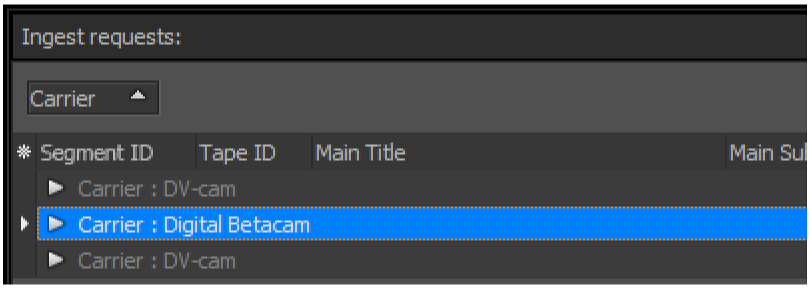
How to Group Data

To group the data in a grid by one or more columns, proceed as follows:

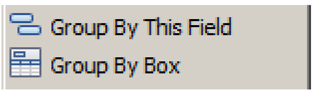
1. Right-click any column header.
2. From the context menu, select the option:
   - **Group By This Field** if you want to quickly group the data in the grid by this column.

     The Group By box automatically appears above the grid displaying the header of the column(s) the data is grouped by. By default, the groups are sorted in ascending order. To change the sorting of the groups, click the column header in the Group By box. Proceed to step 4.

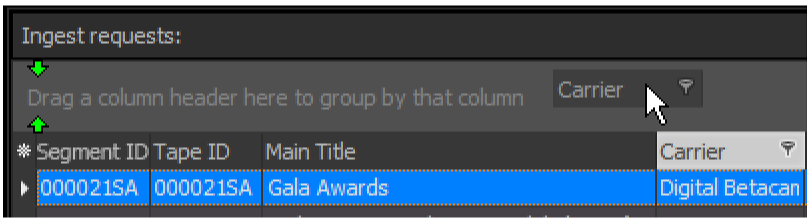
     

   - **Group By Box** if you want to group the data by dragging one or more column headers to the Group By box.

     The Group By box appears above the grid. Proceed to step 3.
3. Drag the header of the column by which you want to group the data in the grid to the Group By box.

   Two green arrows will indicate where you can drop the column header.

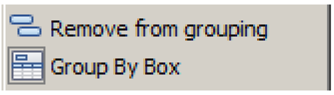
   

4. (Optional) To create subgroups, drag one or more of the other column headers to the Group By box. Two green arrows will indicate where you can insert the header. You can add each new header before or after the headers that are already there. If necessary, you can still reorder the headers to change the grouping hierarchy.

How to Ungroup Data

To undo a grouping, do one of the following:

- Drag the desired column header from the Group By box back to the grid.
- Right-click the header of the column in the Group By box you want to remove from the grouping and select the option **Remove From Grouping** from the context menu. This option only appears if a grouping has been applied.



To remove the Group By box again, right-click any column header in the grid and select the option **Group By Box** from the context menu.

8.7. Performing Basic Calculations on Data

8.7.1. Footers and Basic Calculations

You can perform basic calculations on the data in a grid by adding footers.

Types of Footers

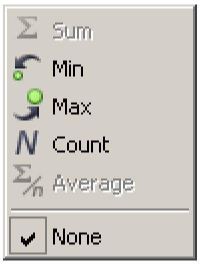
Two types of footers can be distinguished:

- **Grid footer:** Footer added at the bottom of a grid allowing you to perform calculations on all values in a particular column.
- **Group footer:** Footer added at the bottom of a group allowing you to perform calculations on the values of a particular column in that group.

The result of a calculation performed on the data of a particular column is displayed in a **footer cell** below the column in the grid or group footer.

Basic Calculations

Right-clicking a footer cell in a grid or group footer will open the **footer context menu**. This menu will allow you to select or change the type of calculation that should be performed on the data of a particular column.



Depending on the type of data contained in each column, you will be able to perform one or more of the following calculations:

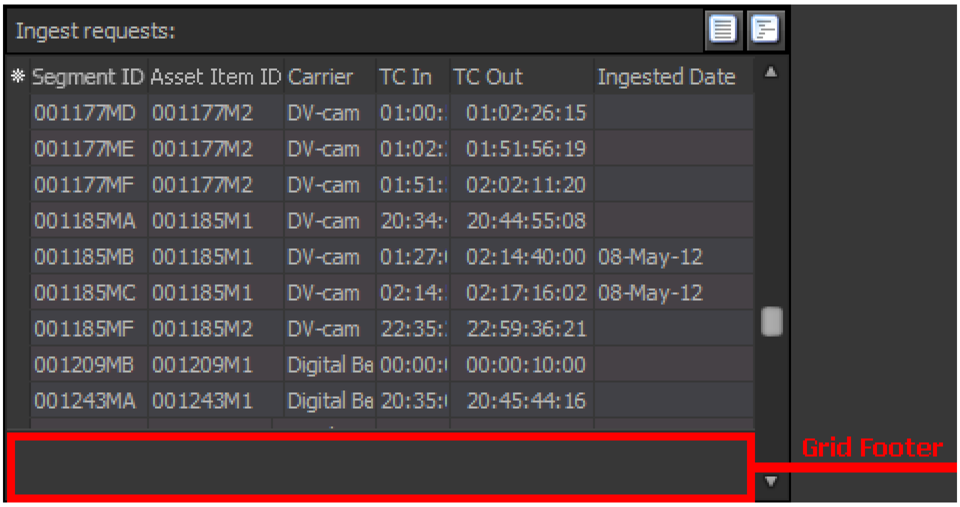
- **Sum**: Adds up all numbers in a column.
- **Min**: Defines the lowest value in a column.
- **Max**: Defines the highest value in a column.
- **Count**: Counts the elements in a column.
- **Average**: Calculates the average value of all numbers in a column.

8.7.2. Performing Basic Calculations on Non-Grouped Data

To perform basic calculations on all the data of one or more column, proceed as follows:

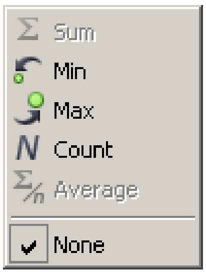
1. Right-click the desired column header.
2. From the context menu, select the **Footer** option.

The grid footer automatically appears at the bottom of the grid.



3. In the grid footer, right-click the footer cell below the column whose data you want to perform calculations on.

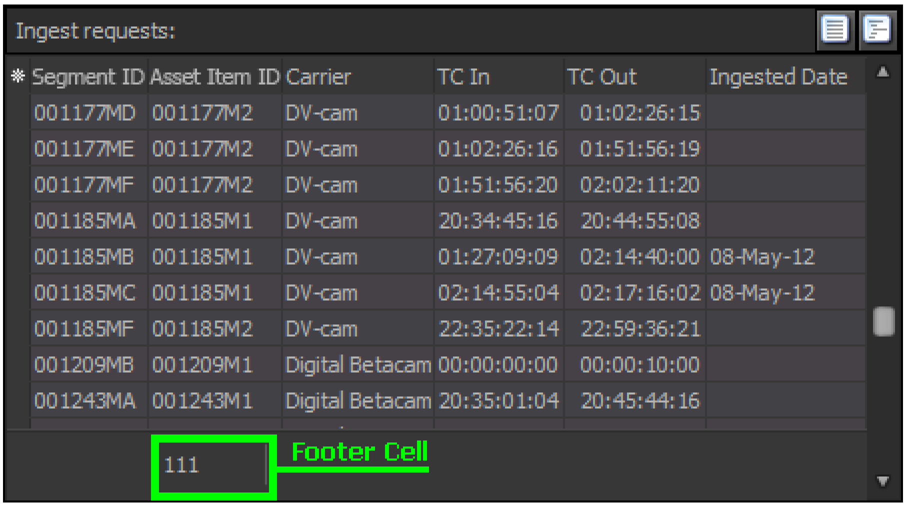
   A context menu with basic calculations appears.



> **Note**
> Depending of the type of data in a column (dates, alphanumeric data), all or only some of the calculations will be available.

4. Select the desired calculation.

In the footer cell the result of the calculation appears.

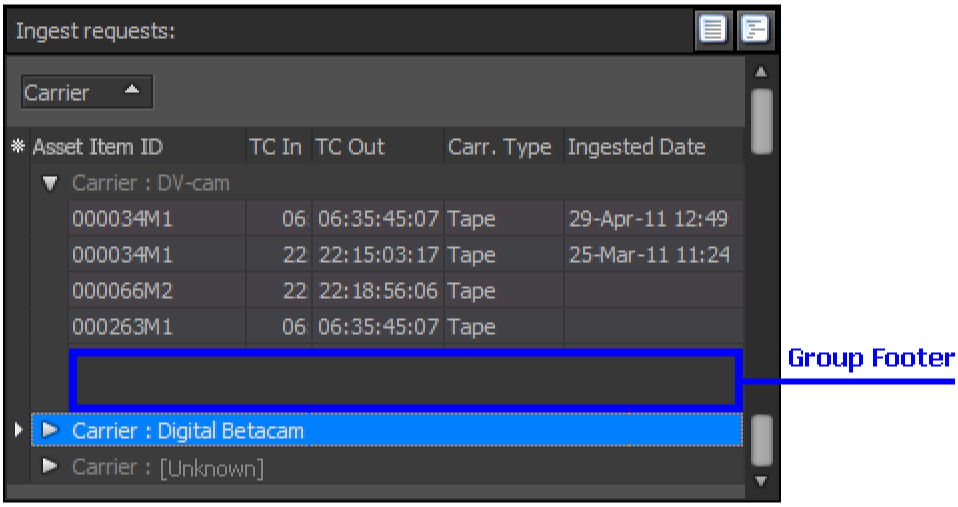


8.7.3. Performing Basic Calculations on Grouped Data

To perform basic calculations on data in a group, proceed as follows:

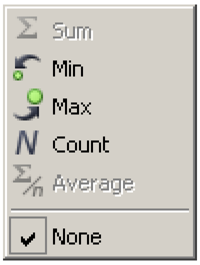
1. Right-click the header of any column in the grid.
2. From the context menu, select the **Group Footers** option. This option only becomes available when the data in the grid has been grouped.

A group footer is added to each group in the grid.



3. In the group footer, right-click the footer cell below the column whose data you want to perform calculations on.

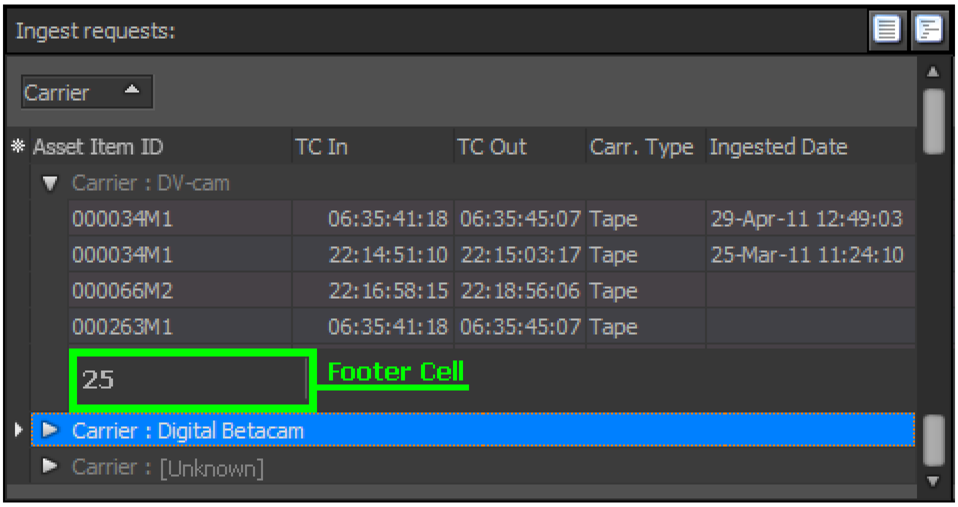
   A context menu with basic calculations appears.



Note
Depending of the type of data in a column (dates, alphanumeric data), all or only some of the calculations will be available.

4. Select the desired calculation.

In the footer cell the result of the calculation appears.

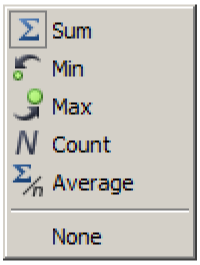


8.7.4. Removing Footers

You can remove the grid and group footers and also clear the content of a cell footer. Do one of the following:

- To remove the grid footer or all group footers, right-click any column header and in the context menu deselect the option **Footers** or **Group Footers**.

- To clear the contents of a cell footer, right-click it and from the footer context menu select the option **None**.



8.8. Printing and Exporting Data

The data in a grid can be printed and exported to Excel for reporting purposes.

How to Print Data

To print the data of a particular grid, proceed as follows:

1. Click the **Print** button  above the grid whose data you want to print.

   A Print dialog box appears.
2. Click **Print** to print the grid data.

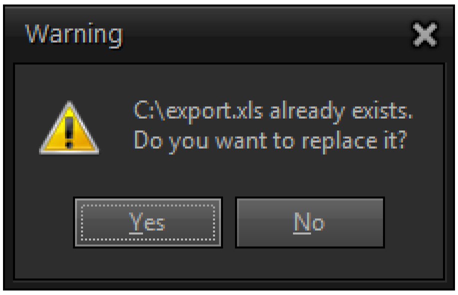
How to Export Data to Excel

To export the data of a particular grid to Excel, proceed as follows:

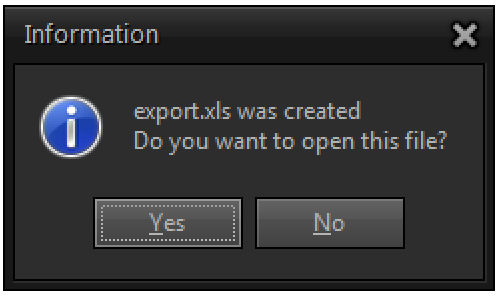
1. Click the **Excel Export** button  above the grid whose data you want to export to Excel.

   An Excel file is generated.
2. Browse for the folder where you want to save the Excel file.
3. Enter a name in the **File Name** field or use the default name, and then click **Save** to save the file.

   If the folder contains an Excel file with the same file name, a warning message will appear asking you if you want to replace the existing file. Click **Yes** to continue and **No** to cancel the operation.

   Once you have saved the file, a message box appears asking you if you want to open the newly generated Excel file. Click **Yes** to open the file and **No** to cancel the operation.

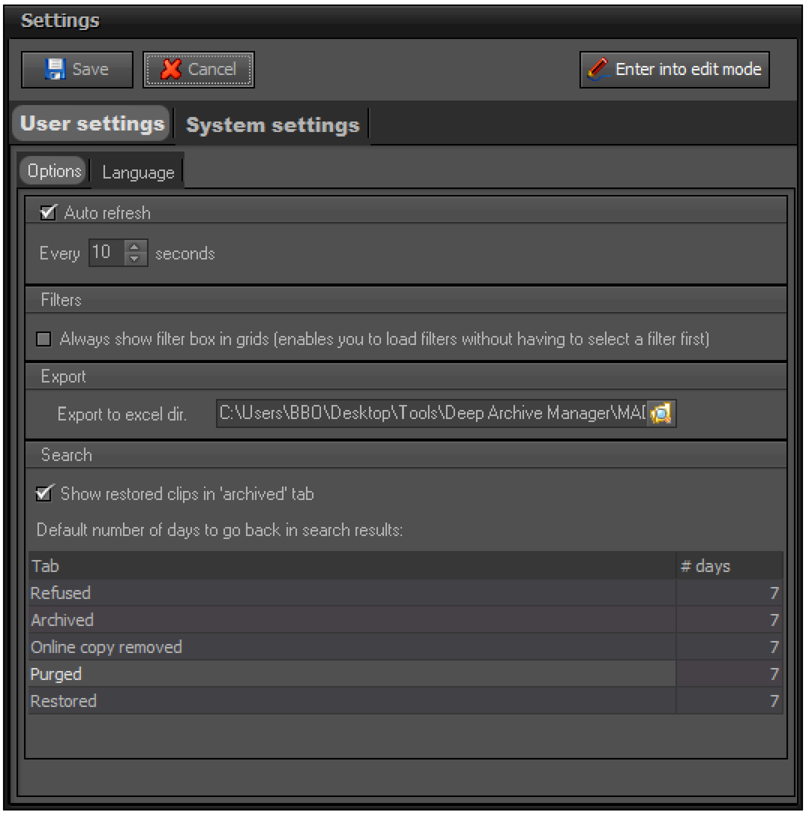
   

9. Configuring the Application

9.1. Settings Window

Opening the Settings Window

The Settings window allows you to configure your application. The first time the application is launched after it has been installed, the Settings window opens automatically.



The Settings window can also be accessed through the **Settings** menu.

Overview Setup Categories

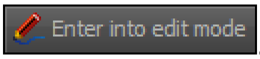
The settings can be divided into two setup categories. In the Settings window, a tab is provided for each setup category. The table below briefly describes each setup category:

Setup Category	Description
User Settings	These settings can be configured by each individual user.
System Settings	These settings configure the general functioning of the application. They can only be configured by the system administrator.

Edit Mode

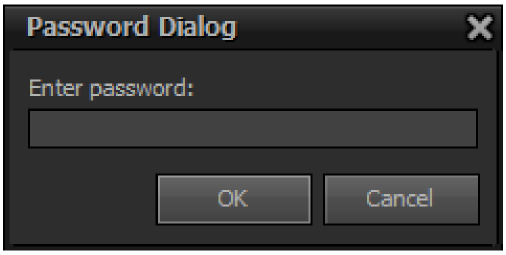
To be able to edit the System settings, you first have to enter a password.

To put the Settings window into Edit Mode, proceed as follows:

1. Click the **Enter Into Edit Mode** button 

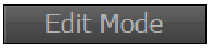
.

   A dialog box appears.

2. Enter the administrator password and then click **OK**.

   The Settings window enters into Edit Mode.

Note
Certain settings are read-only and cannot be configured. These can only be modified in the MAD Config application. Other settings have to be configured locally.

Saving Settings

A **Save** button is provided which allows you to immediately save the changes you have made to the settings. With the **Cancel** button you can discard the changes you have made.

9.2. User Settings

9.2.1. Overview User Settings Subcategories

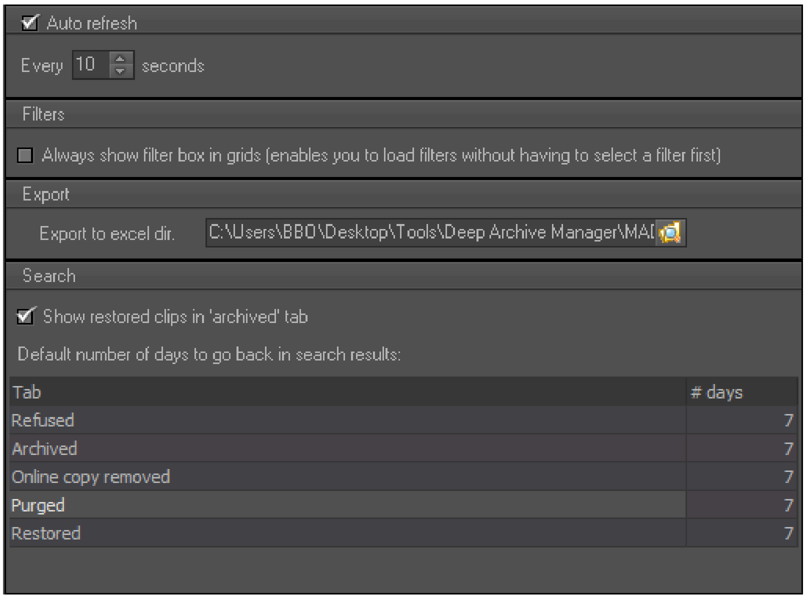
The User settings are divided into the following subcategories:

- Options
- Language

For each subcategory a tab is provided.

9.2.2. Options Tab

The Options tab contains various settings.



Enabling Autorefresh

In the Auto Refresh group box the autorefresh functionality can be enabled or disabled and a refresh interval can be defined. By default, the grids are automatically refreshed every 10 seconds.

Activating the Filter Bar

In the Filters group box you can activate or deactivate the display of the filter bar at the bottom of each grid, enabling you to load previously saved filters without having to select a filter first.

Specifying the Storage Folder for Excel Exports

The Export group box allows you to specify a storage folder for the Excel exports. By default, the installation folder of the application is selected.

Hiding or Showing Restored Files in the Archived Tab

The option **Show Restored Clips in 'Archived' Tab** allows you to hide or show restored files in the Archived tab. If selected, the files will be displayed. If not, the files will be hidden. The files will still be visible in the Restored tab.

Defining a Default Search Period

In the Search group box you can define the default date range of the date filters in the following tabs: Refused, Archived, Online Copy Removed, Purged and Restored tab. By default, the date range is set to the last 7 days.

9.2.3. Language Tab

The Language tab allows you to change the language of the Deep Archive Manager user interface. The default language is set in the Configurator application, but can be changed locally. The language can be set per user.

9.3. System Settings

9.3.1. Overview System Settings Subcategories

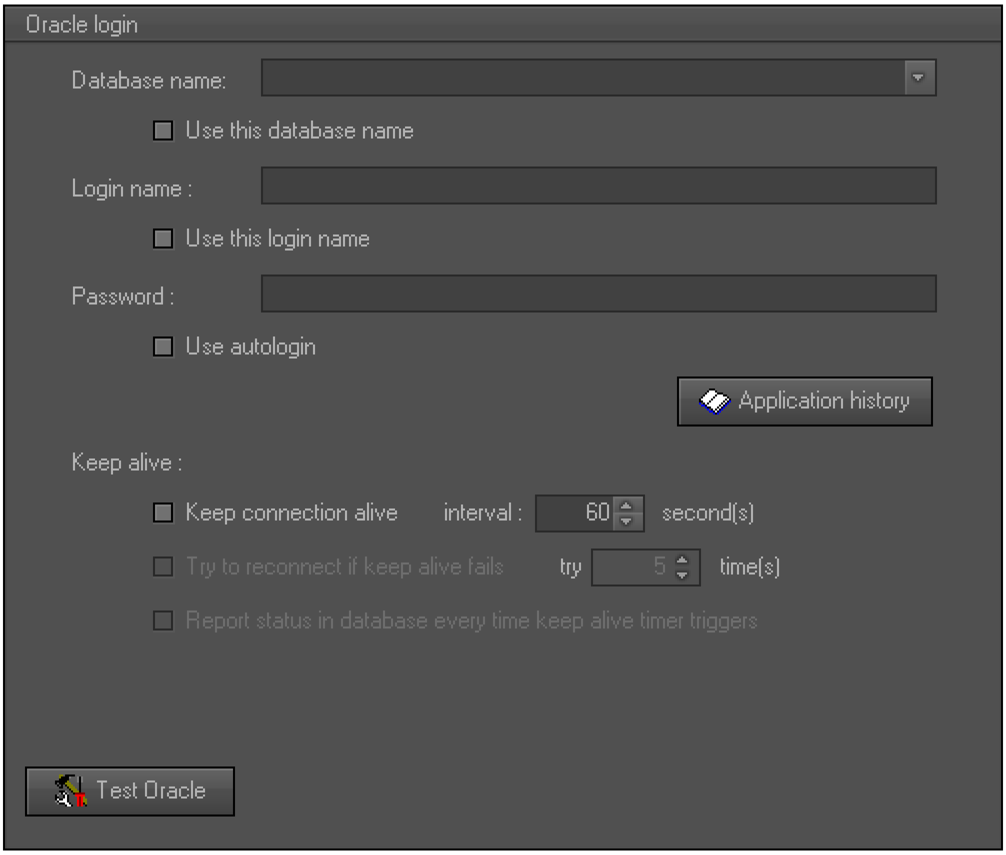
The System settings are divided into the following subcategories:

- Oracle Connection
- E-Mail Options
- IPDirector API

For each subcategory a tab is provided.

9.3.2. Oracle Connection Tab

The Oracle Connection tab allows you to configure the connection with the Oracle database.



Entering the Database Name

In this field you have to enter the name of the database the application has to connect to.

If the **Use This Database Name** check box is selected, the name of the database will automatically appear in the Oracle login dialog box at start-up.

Note that the database name will be automatically entered and the **Use This Database Name** check box will be automatically selected when you log into the application for the very first time.

Entering the Login Name

In this field you have to enter a login name. If the **Use This Login Name** check box is selected, the login name will automatically appear in the Oracle login dialog box at start-up.

Note that the login name will be automatically entered and the **Use This Login Name** check box will be automatically selected when you log into the application for the very first time.

Entering a Password

In this field you have to enter a password. If the **Use Auto Login** check box is selected, the application automatically logs into the selected database at start-up. The Oracle login dialog box does not appear.

Note that the password will be automatically entered and the **Use Login** check box will be automatically selected when you log into the application for the very first time.

Checking Application History

By clicking the **Application History** button, you can open a chronological list of all software versions of the application. To get more details about each version (creation date, name of programmer, status, additional remarks), you have to click **+** next to the version number.

Activating Keep Alive

If the option **Keep Connection Alive** is selected, a message is sent to the database at regular time intervals to avoid idle connections from being closed by the firewall. These intervals can be set by you.

Note that this option will be automatically selected when you log into the application for the very first time.

If the option **Try to Reconnect if Keep Alive Fails** is selected, the application will try a number of times to reconnect with the database.

If the option **Report Status in Database Everytime Keep Alive Timer Triggers** is selected, the status of the connection is reported in the database each time the Keep Alive Timer sends a trigger to send a Keep Connection Alive message.

Testing the Oracle Connection

The **Test Oracle** button allows you to check the validity of the database name, login and username you entered.

If these data are valid, then the following message appears next to the **Test Oracle** button: ‘OK’.

If the login name or password is invalid, then a message box appears with the following message: ‘ORA-01017: invalid username/password; logon denied’.

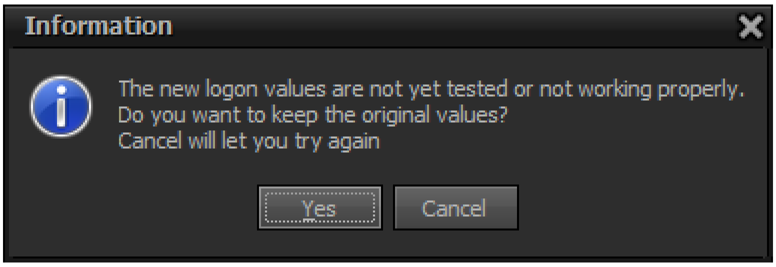
If the database name is invalid, then a message box appears with the following message: ‘ORA-12154:TNS: could not resolve the connect identifier specified’.

If you omit the password, then a message box appears with the following message: ‘ORA-01005: null password given; logon denied’.

If you do not enter a database name, login and username, then a message box appears with the following message: ‘ORA-12560: TNS: protocol adapter error’.

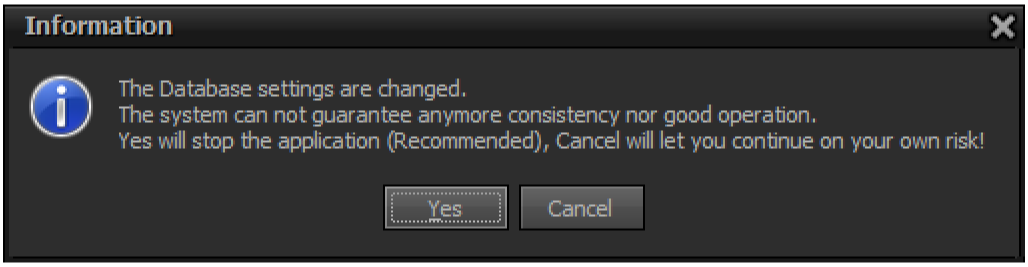
You can also check the software version of the application by clicking the **Test Oracle** button. If the software version is up-to-date, then the following message appears: ‘Current– The Current Version’. If the software version is outdated, then the following message appears: ‘Unknown Version Application! Please contact the EDP department.’

If you close the Settings window without testing the validity of the database name, login and username you just entered, then a message box appears.



If you click **Yes**, then the Settings window is closed and the original values are restored. If you click **Cancel**, then the Settings window does not close and you can test the values by clicking the **Test Oracle** button.

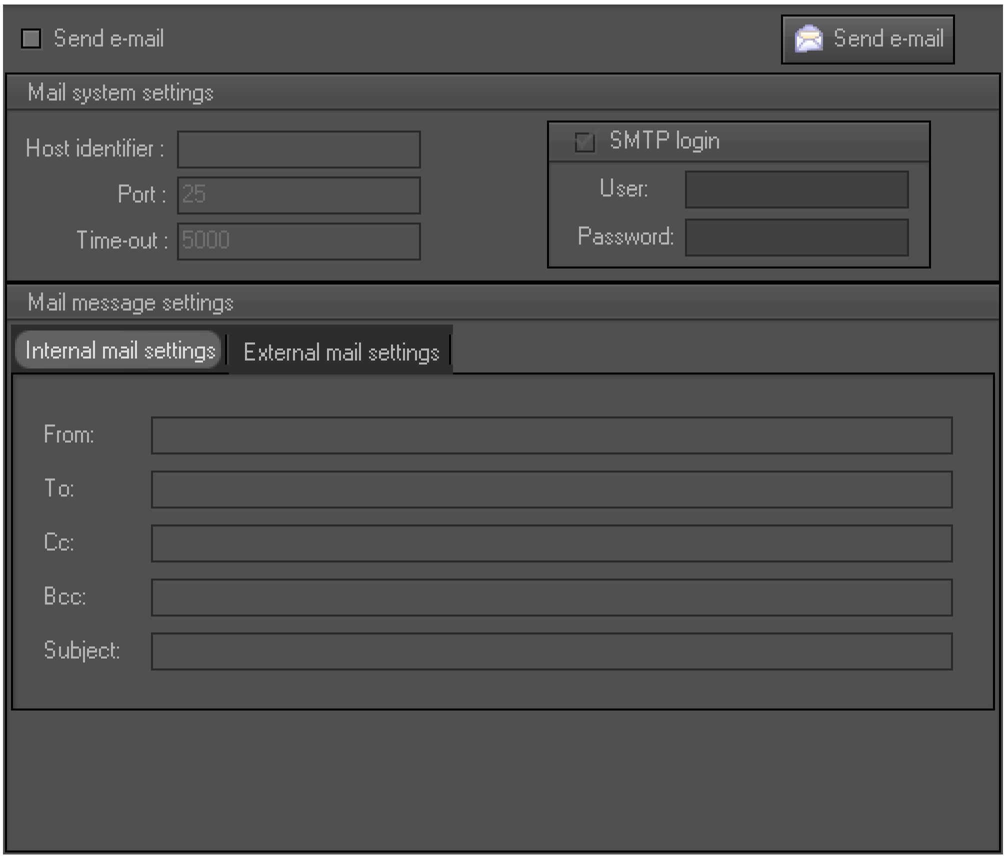
If you change the current database settings, test the connection and then close the Settings window, a message box will appear.



If you click **Yes**, the application is stopped and closed. A manual restart will be required. Click **Cancel** to continue.

9.3.3. E-Mail Options Tab

In case the application is capable of sending e-mail messages, the E-Mail Options tab will allow you to configure an e-mail account, enter the e-mail address of the default sender and recipients, and enter a default e-mail subject. If the application is not capable of sending e-mail messages, the settings in this tab cannot be used.



To be able to configure the e-mail account, you have to select the **Send E-Mail** check box. The fields in the Mail System Settings and Mail Message Settings group box become available.

Configuring an E-Mail Account

In the Mail System Settings group box you have to enter the IP address and port number of the SMTP server and specify a timeout. In the SMTP Login group box you can enter a user name and password.

Configuring a Default E-Mail Message

The Mail Message Settings group box contains two tabs: Internal Mail Settings and External Mail Settings.

The Internal Mail Settings tab can be used to configure a default e-mail message that will be sent to the EVS developers and the customer when an error occurs.

The External Mail Settings tab can be used to configure a default e-mail message that will be sent to the customer to notify him about an error. In each tab you have to enter the sender's email address, the email address of the various recipients and a subject. It should be noted that this tab is not always used.

When you insert multiple e-mail addresses in any of the header fields, make sure you separate them by a comma.

To test the settings and manually send an e-mail message, click the **Send Mail** button.

For the new settings to take effect, close and restart the application. Check the TOM.ini file in the `AppData\Roaming\EVS Broadcast Equipment\MAD\[Application]` folder for the e-mail addresses and subject entered here.

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